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TRAIL & LANDSCAPE

A Publication Concerned With Natural History and Conservation

The Ottawa Field-Naturalists' Club

TRAIL & LANDSCAPE

Editor
Karen McLachlan
Hamilton

Associate Editor
Luke Périard

Production Assistant

Mailing Team Coordinator
Louis L'Arrivee

Mailing Team
Louis L'Arrivee
Karen McLachlan
Hamilton
Dave Smythe
Verna Smythe
Henry Steger
Jean Wylie

Publications Mail Registration # 09798

The Ottawa Field-Naturalists' Club

— Founded 1879 —
President
Ann Mackenzie

Objectives of the Club: To promote the appreciation, preservation and conservation of Canada's natural heritage; to encourage investigation and publish the results of research in all fields of natural history and to diffuse the information on these fields as widely as possible; to support and co-operate with organizations engaged in preserving, maintaining or restoring environments of high quality for living things.

Club Publications: THE CANADIAN FIELD-NATURALIST, a quarterly devoted to reporting research in all fields of natural history relevant to Canada, and TRAIL & LANDSCAPE, a quarterly providing articles on the natural history of the Ottawa Valley and on Club activities.

Field Trips, Lectures and other natural history activities are arranged for local members; see "Coming Events" in this issue.

Membership Fees: Individual (yearly) $40
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Membership application, correspondence:
THE OTTAWA FIELD-NATURALISTS' CLUB
Box 35069, Westgate P.O. Ottawa, Ontario K1Z 1A2

Information:
(613) 722-3050

TRAIL & LANDSCAPE

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Welcome New Members

Ottawa Area

Suzanne Britton
Rick Cavasin
Peter Croal & Family
Dale Edwards/Jean Sorensen
Brian Grassie
Michelle Hak Hepburn & Family
Patricia Hunt
Raymon Kaduck
Robert McKenzie & Family
Gertrude Notten & Family
Gregory Richardson
Mark E. Robertson
Stephen J. Sterling & Family
Nadine P. Tate
Cynthia J. Termorshuizen
Eve & Barrie Thomas
Lynne Williamson & Family
Barbara C. Yurkoski & Family

Gatineau Area

Geoff A. Bokovay
Katharine & Eric Fletcher
Annie McKenzie & Family
Cathy Simard & Family

Ontario

Mike Cadman

Quebec

Dr. Ronald A. Javitch

Henry Steger
Chair, Membership Committee
February 2011

The President's Perspective
Spring 2011

Talking among Ourselves

I am writing this waiting for the January deep freeze to lessen its grip. You are reading this in *T&L* waiting for the first crocuses to appear.

This is just to emphasize the long lag time between the writing and the reading in a quarterly publication. The President's Perspective is a fine way to share my thoughts with respect to the happenings of the Club. But, there certainly can not be any urgency in the message. And if you want to comment back to me then you might have to bite your tongue—there is not an easy way to do so. (Hint #1: Look around the name tag table at the monthly meetings).

It was no surprise that discussion at the January Business Meeting focused on the increase in membership fees and the additional charge for hard copies of CFN. As part of that exchange it was observed that the Council had made these major decisions without 'consulting' with the membership at large. Very true.

So, how do we talk among ourselves? How does Council seek members' views?

The group discussion at the business meeting is old fashioned but does allow everyone to hear the questions, answers, comments, etc. Fortunately all 800 club members did not attend or even that forum would not have worked.

The OFNC belongs to all its members. The Club is in a time of considerable change as we update and modify to be relevant and functioning today. We have two publications and a website. We also have monthly meetings that only a small group attends. These mechanisms are not sufficient in 2011.

Today we can use email notifications for last minute changes to our events or to alert you to a conservation issue. However, these are a one way flow of information. How do you engage in the conversation? Even if you send an email there is no way that Council could respond individually to all emails. And if we did, others would not be party to the conversation. That is not satisfactory.

Technology is evolving faster than my brain can absorb. Somewhere there are mechanisms that will allow an exchange. The challenge is to find a means that is accessible to most members, not just the tech-savvy younger members. Your Council is looking at this question as part of their TO-DO list for 2011. If you have any ideas or suggestions then . . ? (Hint #2: look for those with green name tags, i.e. Council members, at the monthly meeting.)

Ann MacKenzie

"Golden Anniversary" Membership List 1942 - 2011

Henry Steger
Membership Chair

Joined in

1942	R.Y. Edwards	Victoria BC
1943	Dr. C. Stuart Houston	Saskatoon SK
1943	Sheila Thomson	Ottawa ON
1946	Dr. Jack M. Gillett	Ottawa ON
1948	Enid Frankton	Ottawa ON
1948	Mr. David Erskine	Willowdale ON
1950	H.G. Lumsden	Aurora ON
1951	Dr. E.L. Bousfield	Mississauga ON
1954	Yvonne & James F. Bendell	Clayton ON
1956	Dr. Charles D. Bird	Erskine AB
1956	J.W. Holliday	Ottawa ON
1957	R.E. Bedford	Ottawa ON
1957	J.E. & Mary E. Bryant	Ottawa ON
1958	Elizabeth Alexander	Cumberland ON
1960	V. Bruce Collins	Bancroft ON
1960	Dr. G.R. & Dorice Hanes	Carleton Place ON
1961	Dr. C.D. MacInnes	Stouffville ON
1961	R.W. Nero	Winnipeg MB

R.E. Bedford was elected an Honorary Member in 2011.

The 132nd Annual Business Meeting

Karen McLachlan Hamilton

Like many business meetings, if given the choice, most people would rather do something else than attend an annual business meeting (ABM). This meeting was like most—approximately 25 people attended, and most were Council members. There was, however, one new member who chose to make this one meeting his first club event. Kudos to Rick for traveling from the west end on those slick roads that evening to attend.

Certain items are addressed only at the ABM, such as the Treasurer's report, the annual committee reports, and the nomination of the Club's council and auditor. It is the best time and the easiest venue to express your concerns about Club activities, to make recommendations, and to discuss any issue you are interested in. However, for those who were unable to make the January meeting, the following is a synopsis of what transpired at the 132nd ABM.

Club finances. The 2010 fiscal year was the first year in five where the operating revenue exceeded operating expenses. This means that the monies received through fees, unrestricted donations, subscriptions and page charges covered all the costs (publication costs, insurance, postage, publicity, building rental for Fletcher Wildlife Garden etc.). The main operating expenses include rental payment for the Fletcher Wildlife Interpretive Centre, bookkeeping fees, computer fees (i.e. internet provider costs), postage for *The Canadian Field-Naturalist* (*CFN*) and *Trail & Landscape* (*T&L*), telephone (the OFNC and FWG numbers), and surprisingly, the GST. Any financial support the Club gives to other organizations (such as to the Nature Conservancy to help them purchase sensitive lands) comes from the reserves. Even though the Club maintains a healthy reserve (approximately $50,000), operating in a deficit was a constant worry for Council, so "being in the black" was a bit of a relief.

Membership. There was a lot of discussion around the increased membership fees. Why the increase? What do we get for our fees? Should there have been more membership input before the increase? All very valid questions.

Basically, membership fees are one of the crucial resources used to run the Club, and since the Club had been running a deficit, it was one way of helping to balance the budget. But what are other ways to increase funding without increasing fees? The

Club has tried selling items at monthly meetings, and advertising the club to attract new members. Other options which have been considered (and brought up by a member at the meeting) was allowing advertising in *CFN* and *T&L*. This may be considered, but the Club has not found someone who would be willing to look into it. Other thoughts proposed that evening included having a student and a senior membership rate.

OFNC members receive, unless they decline, copies of *CFN*, *T&L*, and the ability to participate in Club sponsored excursions and monthly meetings. They also contribute to conservation and wildlife education within the Ottawa area and beyond. The OFNC has provided a voice on various issues. As one member aptly stated, members are helping to make the world a better place. As the Club is a registered charitable organization, by law it cannot profit from its activities.

With respect to further discussion among its members, I know Council struggled with this issue when making the decision to increase fees. The President's Perspective tries to inform members of Council's decisions, but is that enough? Some think not, which was why a member brought it up at the ABM. So how does a member express their opinions on this or other topics? If a member is unhappy about some issue, perhaps they should send an email to the President or a council member using the website, or send a letter to the Club or Editor, or even a telephone call. Perhaps there should be a comment section on the website. At the moment, Council is unsure what is the best or more efficient method. Does anyone have any suggestions?

Publications. Many changes have occurred within this committee over the past year. There had been discussions over the years about the rising costs of producing *The Canadian Field-Naturalist*. The cost to produce a single issue today is about $9000, a lot of money for a charitable organization to pay four times a year. I know that some members wonder if it is worth producing. Personally, I think it is, as it is one of the few existing (let alone Canadian) natural history scientific journals. Due to the journal process, it tends to be recognized internationally and is often highly regarded. Believe it or not, it actually gives the OFNC a higher profile. Unfortunately, producing a journal is a lot more costly than popular magazines or newsletters like *T&L*. Due to its historical evolution, the OFNC is in a unique position where a local club is producing a scientific journal and not a professional society (where membership fees are higher), or has some other entity providing the funding (i.e. the Northeastern Naturalist has the Humboldt Field Research Institute and the Smithsonian Institution as co-sponsors).

An ad hoc committee was set up to assess the feasibility of publishing *CFN* online and would the current system continue to work in this capacity. It was concluded

that the current system no longer met the needs of the people who use the CFN, particularly the institutional subscribers. Other options were found. Of these, the two most viable were a commercial publisher and the Open Journal System. Both were presented to Council; the latter was approved.

So what happens now. Long time editor, Francis Cook, will continue to complete Volume 124, and a new editor will begin producing Volume 125 using the OJS system. Producing CFN online may reduce Club expenses, and it may reach people outside the Ottawa region or people who spend more time "online" than "in library" (which may translate into new members). Time will tell. The one change which should be noted is that once the *CFN* is online and free to all members. Print copies, however, will continue to be available, but in order to cover printing costs, there will be an additional fee.

Council. There are many changes in the 2011 Council. Three long standing members are stepping down—Stan Rosenbaum (Conservation Chair), Ron Bedford (Publications Chair) and Francis Cook (Editor *CFN*). Also leaving are Ken Allison, Luke Périard, and Christine Wong. New members to council include Dan Brunton, Carolyn Callaghan and Jeff Saarela. Ann McKenzie remains as President, and Fenja Brodo and Jeff Skevington continue to serve as Vice-President. There are still five unfilled council positions.

The meeting ended with a very kind note from Francis who thanked the Club for its years of support. He especially to thank Ron Bedford, Sandy Garland and Frank Pope for their help over the years.

OFNC Committees for 2011

Frank Pope

The following OFNC committee members were approved by the Council at its meeting on February 21st. Committee members may be added during the year as approved by the Council. The members listed below will operate your club in 2011. Committee Chairs appear in bold letters with their telephone numbers and email addresses. Should you have any questions, comments, complaints or compliments pertaining to the operations of a committee, or should you desire to serve on a committee, please contact the chair or speak to a member of the relevant committee.

AWARDS
Eleanor Zurbrigg
(613-224-8823)
ezurbrigg@sympatico.ca
Ken Allison
Irwin Brodo
Julia Cipriani
Christine Hanrahan

BIRDS
Chris Traynor
(613-721-9197)
hooty@295.ca
Ken Allison
Marie Bedard
Laurie Consaul
Christine Hanrahan
Anouk Hoedeman
Bernie Ladouceur
Christina Lewis
Larry Neily
Bev McBride
Remy Poulin
Gordon Pringle
Jennifer Spalin
Eve Ticknor

BIRD RECORDS
(subcommittee)
Gordon Pringle
(613-224-0543)
parula@magma.ca
David Britton
Mark Gawn
Bernie Ladouceur
Christina Lewis
Larry Neily
Bev McBride
Jeff Skevington
Michael Tate
Daniel Toussaint
Chris Traynor

CONSERVATION
Ken Young
young058@gmail.com
Lynne Bricker
David Hobden
David Seburn
Stan Rosenbaum

EDUCATION & PUBLICITY
Fenja Brodo (acting)
(613-723-2054)
fbrodo@sympatico.ca
Susan Barker
Suzanne Deschenes
Gillian Marston
Jeewanthi Mendis
Ann Prescott

EXCURSIONS & LECTURES
Jeff Skevington
(613-832-1970)
jeff_skevington@yahoo.ca
Holy Bickterton
Fenja Brodo
Julia Cipriani
Christine Wong

FINANCE
Barbara Chouinard
barbara_chouinard@hotmail.com
Dan Brunton
Ann MacKenzie
Gillian Marston
Frank Pope
Ken Young

FLETCHER WILDLIFE GARDEN
Sandra Garland
(613-730-0714)
sgarland@tecksavvy.com
Barry Cottam
Brian Hadden
Christine Hanrahan
Jeff Harrison
David Hobden
Diane Lepage
Barbara Riley
Henry Steger

Partner representative
Roman Popadiouk

MACOUN FIELD CLUB
Rob Lee
(613-623-8123)
rel@magma.ca
Annie Belair
Barbara Gaertner
Diane Kitching
Carolyn Seburn
David Seburn

MEMBERSHIP
Henry Steger
(613-825-0374)
hsteger@eisa.com
Dave Smythe
Verna Smythe
Marilyn Ward

PUBLICATIONS
Dan Brunton
(613-829-7307)
dbruntonn211@rogers.com
Carolyn Callaghan
Paul Catling
Jay Fitzsimmons
Sandra Garland
Karen McLachlan Hamilton
Elizabeth Morton
Frank Pope

Birders, Photographers and Values

Christina Lewis

What do birds, especially rare birds and owls, have in common with Britney Spears? If that seems like a strange question, then you haven't been out birding in recent years. Although the aforementioned celebrity is human, her situation bears a remarkable resemblance to those of owls and other hot or cool birds.

It is human nature to be fascinated with the unusual, the rare and the glamorous, and to join the crowd in pursuit. In spite of our big brains we are still innately both hunters and herd animals. We can be compassionate, but we are also selfish. To some extent we all want to get our picture on the cover of the Rolling Stone, or in the case of owls and other wildlife, National Geographic. But in the process we often lose sight of the big picture—the world we live in, and the other living beings around us.

Owl Be Back . . . Or Not

In the October 2007 issue of *OFO News* (the newsletter of the Ontario Field Ornithologists), Ron Pittaway and Jean Iron wrote a short article entitled "Paparazzi Birders." They said, "We are all paparazzi birders from the bird's point of view" and that we must all "consider our impact on the birds and their diminishing habitats." Owls in particular were not cited in this article as major targets, but they are. Some species seem very approachable, which can lead to the illusion that they are tame. The problem is that we forget, or perhaps never learn, about the lives of the birds we are pursuing for that close-up look or that candid shot.

During the Great Gray Owl irruption of 2005-2006 we were privileged to experience this phenomenal opportunity to learn about these rare visitors, their biology and ecology, and why they came south that winter. Unfortunately, rather than learning, many opted to turn this opportunity into a circus, treating these birds as objects rather than as living creatures who are really more like Greta Garbo than Britney, wanting only to be left alone. How many of the observers learned anything beyond how to point and shoot, or how to use Internet listservs to get easy directions to the latest celebrity bird? Instead of keeping our distance and respecting the owls as wild animals under stress due to a crash in their food source on their northern breeding grounds, we ganged up on them along roadsides and trampled through property posted as private, to get that crippling view or perfect photo because everyone else was doing it.

The Great Bait Debate

Have you ever secretly wanted to be Geraldo Rivera or Jerry Springer for a day? Guaranteed to spark a debate, and perhaps even start a fight—just mention baiting. The controversial activity, using live bait to lure birds especially owls is not new, but information on the Internet and the recent proliferation of paparazzi bird photographers have caused it to become almost a subculture. There are people who defend tossing out live mice and other small store-bought rodents to attract owls as harmless and even helpful, providing the birds with food just as we do for foraging passerines at backyard feeders. This seems poor justification for what is essentially self-serving behaviour, at the expense of other animals' lives. Furthermore, when we repeatedly flush a bird to get it to do something so that we can have a better look or photo, is this just not exploitation, tantamount to harassment?

Another issue that has been debated since the beginnings of popular birding is the practice of imitating or playing recordings of birds' songs, in a sense baiting them, to get them to show. Naturally the birds are interested in who's in their space, and whether a newcomer poses a threat. Birds on breeding territory or at a nest site are very sensitive, and our disturbance does cause abandonment of nests and eggs.

The Big Tick, The Big Click, and The Big Picture

The ornithologist who studies birds in the field or in the lab, the bander collecting migration data, the casual birder, the rarity-chaser, the big lister after one more tick on the checklist, the big day aficionado, the field trip leader trying to find his/her participants more birds for their bucks, the photographer trying to get that ultimate portrait, or two, or two hundred . . . there are as many different aspects of birding as there are types of people, and with today's technology and instant information, birds are more accessible than ever before.

In terms of information and resources, what a great smorgasbord we have at hand, literally at the click of a mouse, the electronic kind, that is. In terms of conservation, what great efforts have been made to foster understanding and protection of sensitive species and habitats? While we should all be working together to strive for respect and awareness, instead we regress to selfishness.

More than one person has offered this solution: Simply stop broadcasting birds and their locations. We have gone too far along the information highway for this to be realistic, and the paparazzi will find a way to their quarry. If we think this does not apply to us, we should ask ourselves if we can put down our cameras and our Blackberries, our binoculars and our life lists, and find some perspective and humility. We should consider what our environment, the birds and other creatures, including people, really mean to us.

Do we really want to treat that owl, that rare bird or any creature, like Britney Spears? Are we willing to speak up and confront disrespect, to rise above the crowd, look at ourselves and question our own behaviour? To really see the big picture, and ourselves in it?

The Ottawa Field-Naturalists' Club and the Ottawa RA Photo Club Nature Group collaborated on producing a Code of Conduct for ethical behaviour around birds and their habitats. We included guidelines from the American Birding Association's and Ontario Field Ornithologists' Codes of Ethics, as well as nature photography web sites. Our goal is to attempt some education and promote some awareness—and self-awareness.

We encourage everyone who goes out to enjoy nature, whatever equipment one chooses to use, to have a look at the OFNC web site at *www.ofnc.ca.*

T&L Needs a New Mailing Team Coordinator

Louis L'Arrivée has been *T&L*'s mailing coordinator longer than I have been editor. He has helped keep this publication running smoothly, and someone I have relied on throughout my tenure. Unfortunately with increased work and home demands, Louis is unable to continue. I definitely appreciate all his work and am sorry to see him go; however, Louis has offered to train anyone who is interested in taking on this position.

The existing mailing team is comprised of about six volunteers who produce and attach those white labels you see on the back of issue. The coordinator receives the publication from the printer, obtains the printed labels from the Membership Chair, organizes the "label party" (where the volunteers get together to affix the labels to the issue), completes the Canada Post forms and delivers the issue to the postal terminal. The entire process takes approximately four hours, and occurs four times a year. Louis has organized it such that he does everything from his home, but if that is not feasible, I am sure other arrangements can be made.

Anyone who is interested may contact Karen at (613-838-4943) or at *hamilton@storm.ca.*

The OFNC Soirée

Saturday 16 April 7:30 pm - 10:00 pm
St. Basil's Church

Join us for some fun at our annual wine and cheese party.
Celebrate with the honoured winners of our Annual Awards
Photographers and artists exhibit your pictures
Kids bring your natural history displays
Play our new Natural History Trivia Quiz
Bring a dessert to share and get $2 off your entrance fee

St. Basil's Church is on Maitland Avenue. Entrance is on the east side just north of the Queensway.

BUS ACCESS: Bus # 85 (along Carling Avenue) get off at Maitland Avenue and walk south on Maitland towards the Queensway for 0.5 km (~ 7 minutes walk).

Admission: $10 an adult, $8 if bringing a dessert, children free.

Go native!

Say good-bye to lawn grubs, fertilizers, sprinklers, pesticides.

Fletcher Wildlife Garden Annual Plant Sale
Saturday, 4 June, 2011, 9:30 am - 12:30 pm
(East side of Prince of Wales Drive, just south of the Arboretum)

Hundreds of beautiful wildflowers are native to the Ottawa region. We can tell you which ones suit your backyard. Plant a wide variety of native plants to grow a garden that changes from month to month and that creates an ecological balance making herbicides, pesticides, and chemical fertilizers unnecessary. Most of our plants attract butterflies and birds that bring your garden to life.

See our demonstration backyard garden, and pick up free plant lists and "how-to" info on gardening for butterflies, attracting birds, building a backyard pond, and more!

Information: *www.ofnc.ca/fletcher.*

Rare and Unusual Plant Sale

Friends of the Central Experimental Farm

Sponsored by Friends of the Central Experimental Farm, this event will have plants from many specialty growers and nurseries. Master gardeners will be available to answer questions. The sale will be held on June 18-19, from 9:00 am - 1:00 pm, in the Parking lot beside Tropical Greenhouse on Maple Drive.

Entrance fee: $5.00 or a donation to the Food Bank.

Red Admiral Colony
Life cycle and natural history

Linda Jeays

On the sunny morning of May 2, 2010, I was weeding dandelions in my baekyard when a Red Admiral landed on the lawn elose to my hand. This incident was quiekly followed by news that hundreds of the butterflies, *Vanessa atalanta rubria*, were arriving in the Ottawa area during a rare mass migration north. The previous significant influx of Red Admirals had been in 1985.

Over the next three days I explored the countryside near Richmond and on May 5 found 8-10 Red Admirals in an ideal habitat. All were in very good eondition, exeept one that was faded and had torn hindwings. Territory was established along a path and two females were laying eggs on Stinging Nettles (*Urtica dioica*).

This encouraging eneounter with the colony was the first of 52 sessions of 1-2 hours' duration, usually in the late morning and early afternoon. My final visit was on October 5 when I pieked up an empty and translueent pupa.

Habitat

The main territory was along a quiet path sheltered by a woodlot on one side and open weeds and shrubbery on the othcr side. Bordered in early May with Common Dandelions (*Taraxacum officinale*), the path erossed a small sheltered stream where the atmosphere was often notieeably cooler and more humid than adjacent open areas. In mid-summer the stream dried down to a wet muddy bed, but later flowed again with the rains. Several stands of Stinging Nettles grew among Jewelweed (*Impatiens capensis*) along different parts of the stream bank.

Extending my exploration of the habitat in August, I found Wood Nettles (*Laportea canadensis*) growing among Ostrieh Ferns (*Matteuccia struthiopteris*) within a few metres of another part of the winding stream. The Wood Nettles were sheltered by mature trees whieh kept the area eool and let in very little sunlight.

Nearby there was some open wasteland with eommon tall weedy vegetation and bare ground.

Adults

At its height the colony had at least 55 adults. This is a conservative figure since I did not immediately realize the extent of the suitable host plants and, in any event, it was not practical to explore the whole site on every visit.

Territorial defence was notable along the path in early May and the group dynamic among patrolling males was strong. Activities included chasing each other in horizontal or upward spiral flights and there was a constant intertwining and retracing of flights back to the path, where the butterflies landed to rest and bask. Minerals were ingested from the wet mud, and nectar from the plentiful dandelions. Red Admirals investigated my intrusions by landing on my clothing and insect net.

While there was enthusiastic feeding on the spring dandelions, I saw nectaring on only one other flowering plant, a Common Milkweed (*Asclepias syriaca*) on July 1. On another occasion I watched a group of four adults feeding on tree sap trickling in direct sunshine.

Spread-winged basking took place on sunny dry parts of the path, occasionally on shrubbery, and on the vertical surfaces of a woodpile. In more open areas in spring there were patches of flattened, light-coloured dead grass down among the tall fresh green stems. These well-camouflaged spots provided warmer, sheltered basking places on cool or windy days. Basking was the primary use of the nearby waste land which had no nettles.

I was not fortunate enough to observe a mating pair but I saw one example of mate-seeking behaviour. The male perched along the wood edge bordering the waste land. He would fly out from time to time into the open, always returning to his perching station.

Colony numbers declined dramatically in mid-May (see chart). Dandelions and some Stinging Nettles were cut down on May 17 or 18 and this perhaps reduced the population or influenced its dispersal. By the end of May and the first week of June I was able to find only five or six Red Admiral adults at a time. With one exception, all the butterflies that I examined in this period were old with faded and torn wings. Hindwings were usually ragged and often partially missing. The migrant population was dying out.

In spite of plentiful larvae, fresh adults were scarce. I saw one on May 27 (a puzzle so early), and three probably fresh adults on June 25, eight weeks after the May 2 mass arrival in Ottawa. During visits subsequent to June 4, I located a maximum of only four adults at a time. I saw no adults after August 6 and had evidence of only one successful adult emergence in late September or early October.

Ova and host plants

As mentioned above, on May 5 females were laying eggs (ova) on Stinging Nettles beside the stream. These nettles—larval food plants for Red Admirals—were less than a metre tall in early May but became a shoulder-high jungle later in the season. Some of the nettles with more sun exposure, and in a hollow beside the water, reached over two metres in height.

When nettles in one area became ragged from feeding larvae and the plants almost totally eaten away, adult females moved to different parts of the stream bank and oviposited on nettles with more intact leaves. I believe laying also took place on nettles growing among long wide-bladed grass, but the adults flushed easily from this location and I did not find eggs.

On August 5, I discovered the secluded spot with Wood Nettles. Unlike the Stinging Nettles in August, the large broad leaves of the robust 1.2 m tall plants were almost completely intact and were probably not used by Red Admiral females in May. I found two larvae at this location in August.

Most of the ovipositing I observed took place within a few metres of the main territory. I saw laying in the late morning and early afternoon and in a variety of weather conditions: from 8°C to 30°C (40°C with humidity), and on sunny, cloudy, and windy days. Females sometimes briefly tasted ferns and other plants in their search for suitable spots to deposit eggs.

I verified laying by finding the green eggs which were about 0.5 mm in diameter—no bigger than a period made with a blunt pencil. Eggs were laid one at a time on the upperside of a nettle leaf, sometimes on the youngest central leaves at the growing tip of the plant, but in any case on the upper half of the plant. One egg I inspected touched the edge of a leaf tooth on one side and its centrally positioned vein on the other. It was exceptionally well-camouflaged owing to its colour, size and placement.

Red Admirals have two broods a year and I witnessed two distinct laying periods.

Date	Number of females	Comment
May 5	2	eggs found
May 6	2	sight record
May 10	1	sight record
May 13	5	sight record

Date	Number of females	Comment
May 16	2	eggs found
May 17	2	sight record

Jun 25	1	sight record
Jul 1	1	sight record
Jul 5	1	sight record
Jul 22	1	eggs found

Larvae and shelters

By mid-May the presence of larvae was indicated by many chewed holes in Stinging Nettle leaves. I began to make tentative identifications of 3-9 mm black spiny larvae and a few tiny debris-like instar skins inside rolled leaves.

On June 4, after a week's absence from the site, folded leaf shelters were plentiful and there was nearly always a well-grown Red Admiral larva inside. Leaves were folded in half lengthwise with the upperside inside and the edges completely or partly sealed together with silk. Usually leaves resealed easily after opening but occasionally, when I left the edges apart, I tagged the leaf and checked it on the following day. Shelters were always perfectly repaired. The dozen or so larvae examined on June 4 were 13-18 mm long and often quite tightly confined within the shelter. In early-season hideouts there was often a neat patch of black frass near the tip of the leaf—in some cases congealed into a solid ball. In the shelters of later instars the frass had frequently dropped out entirely, or left only a few remains.

As the month progressed, larvae were more typically 25-35 mm long. Shelters at this time were often nests made of leaf pieces cobbled together with silk, but construction type varied. Sometimes the larva was curled up in a stem-end shelter with the rest of the leaf mostly eaten away, sometimes in the folded over and sealed tip of the leaf. I found the largest shelter on June 17, on a Stinging Nettle over two metres high. A 32 mm late instar was hidden inside a 20 cm long leaf which was perfectly folded in half lengthwise and completely sealed along the edges.

The larval population declined dramatically in the last 10 days of June, and only three or four fresh adults were seen in this period. Many of the shelters were empty or occupied by other species, frequently small spiders or snails. Avian predation was probably the main cause of the reduction in numbers of Red Admiral larvae. On May 10 I noted: "Song Sparrow at the culvert hovering around the nettles when I

arrived." The stream bank where I observed most ovipositing was the male sparrow's vocally claimed territory and its foraging area. The site was mosquito-ridden and along the wood edge there were several other species of common birds, some of which may also have impacted a part of the Red Admirals' life cycle.

Larvae are primarily active at night but two or three times I saw a solitary, slow-moving larva out walking on the upperside of a leaf. When disturbed it moved to the underside.

I saw no larvae on Stinging Nettles after July 1, with the exception of one grey morph on August 6. However, on Wood Nettles I found two late instars—one on August 5, one on August 20—both of which pupated. (Oddly enough, the second larva lived for five days in the folded tip of the leaf which housed the first pupa.)

Since the large broad Wood Nettle leaves were nearly intact in August and I found only two larvae on the plants, I was able to follow the construction of a series of different shelters made by the same larva. For example, on August 27 I noticed a Wood Nettle leaf with the petiole partly nipped through so that the leaf hung vertically. The larva had reinforced the stem-end with silk. When I returned three hours later, the two leaf edges were silked together and the larva was tucked inside a closed shelter. By the next afternoon the leaf had dried and blackened, but the larva was still neatly protected and even better camouflaged inside the almost-dead leaf. This shelter was replaced by a folded leaf shelter on August 30. On September 1 the larva seemed darker and more plump (prepupal form) and was now inside a leaf roughly bent over, but left open. The following day it had pupated.

During the summer I examined about 60 Red Admiral larvae. They were variable in colour and pattern but one basic form, with slight variations, was prevalent: black head and body, branching black or beige spines, a broken white stripe laterally (that appeared as slightly elongated circumflex accents) and reddish legs. Larvae in essentially this form were from 13-38 mm long. In the last week of June I found several 25 mm grey morphs with beige spines.

Of the seven shrivelled instar skins located between June 22 and July 1, six were inside shelters and one was on the upperside of a leaf. Sometimes it was possible to discern the head capsule, body, branching spines and reddish legs.

Pupae

Diligent searches located only five pupae. Three were on Stinging Nettles within a metre or two of each other in Song Sparrow territory. Two were in a secluded spot on adjacent Wood Nettle plants. Both sites were somewhat protected by the overhanging branches of small trees.

Each pupa hung inside a bent-over leaf that was either completely open or had the edges partly sealed—leaving an escape hatch. A sturdy thick cremaster hooked the pupa firmly into an irregular silk pad attached to the leaf. Pupae were about 20 mm long by 10 mm at the widest point. When healthy they were light grey with shiny gold highlights and sometimes greenish iridescence.

I found the first pupa on June 28 on a plant tagged as having a late instar Red Admiral on June 25. The pupa had disappeared by July 5, as had a second pupa found nearby on July 1. Both were probably eaten by birds.

The third pupa, also located on July 1, was parasitized. When I examined it on July 5 the upper half was stained dark red and reddish fluid was leaking through a 10 mm lengthwise split. As I watched in 30-40°C heat, the pupa opened up laterally near the cremaster end and several 3-4 mm long yellowy-white grubs wriggled out.

Another pupa, found inside a folded and partly sealed Wood Nettle leaf on August 10, was also parasitized. Checking the shelter on September 10, I discovered a still-wet hole at the bottom (head portion) of the pupa, as if it had been cut off with a knife. Originally described in my notes as "light grey," later entries indicate that the pupa looked progressively "drier" and "more beige" as it aged. Perhaps also relevant is a September 3 comment: "Two very small thin waspy-looking, hover-flying insects interested in the exact vicinity of the pupa."

The plump black larva of September 1 had become a pupa hanging inside a loosely bent over, completely open Wood Nettle leaf by the following day. On September 6 I noted a small black spider curled up next to the pupa. Four days later the spider had closed the petiole end of the shelter with a leaf (now dead) and had sealed up the rest of the opening with compact and bewildering layers of webbing. The spider was tucked into the edge of the leaf where it could no doubt escape into the closed shelter. The pupa was completely encased by the now-sealed leaf.

Visited a week later, the pupa was exposed again in its simply folded leaf, having been protected for several days. The spider was absent and only traces of the webbing remained. Heavy rain may have destroyed the webbing since a predator would likely have damaged the leaf—which was still whole. On September 27, the 26-day-old pupa was intact, light grey and "heavy-looking." When I returned on October 5, it was a spotless, translucent, dry, empty pupa split along the thorax. An adult Red Admiral had emerged successfully.

Population of Red Admiral adults

Date	Location			Condition
	Area 1 path & stream	Area 2 stream bank	Area 3 waste land	
May 5	8-10	-	-	all good condition except 1 very faded with torn hindwings
May 6	20-25	-	-	
May 7	30+	-	13	1 worn
May 10	29	-	-	
May 13	26	18	11	
May 16	13	-	-	
May 17	13	4	-	1 with badly damaged hindwings
May 19	4	1	4	
May 24	8	4	-	4 very old, faded, damaged hindwings
May 27	6	1	3	7 old, faded, torn, parts of hindwing missing
May 28	4	1	0	2 worn, 2 fair condition
Jun 4	4	2	0	5 worn
Jun 8	2	1	-	1 very old
Jun 13	1?	-	-	
Jun 17	0	-	-	
Jun 22	0	-	-	
Jun 23	1	1	1	1 (probably all) fresh
Jun 28	1	0	0	

Date	Location			Condition
	Area 1 path & stream	Area 2 stream bank	Area 3 waste land	
Jul 1	1	1	2	1 worn, 1 good condition, 2 fresh
Jul 2	2	-	-	
Jul 5	2	-	-	
Jul 8	2?	1	1	
Jul 14	0	0	1	very old, small
Jul 22	3	0	0	1 very old and small, 1 fresh
Jul 29	1?	0	0	
Aug 5	0	0	0	
Aug 6	1	0	0	1 very old

Notes

- Condition is given for butterflies examined closely.
- A dash indicates the area was not visited.
- A question mark indicates a probable Red Admiral. No adults were seen after August 6. There was one successful adult emergence in late September or early October.

Acknowledgements

- I am indebted to the patient landowner for the rare learning opportunity and most enjoyable summer.
- Many thanks to Ross Layberry, a great teacher.
- Additional thanks to Eleanor Thomson who shared her expert knowledge of stinging nettles.

The Lichens of Gatineau Park, Quebec

Colin E. Freebury

Lasallia papulosa *(damp). On rock face off Trail 05.*

Abstract: Three hundred and twenty four lichens, five lichenicolous fungi and seven saprophytic fungi are reported for Gatineau Park.

Introduction

Gatineau Park was created in 1938 and is located in the southwestern part of the province of Quebec, near the nation's capital, Ottawa. The park consists of federally, provincially and privately owned lands administered by the National Capital Commission, covers 363 square kilometres and extends about 50 kilometres northwest of the Gatineau-Ottawa metropolitan area. Most of the park is in Les Collines-de-l'Outaouais Regional County Municipality, while the southern part is in the City of Gatineau.

The park includes three major ecological regions: the Gatineau Hills (a temperate climate, hardwood forests dominated by maple, beech and oak, along with some white pine); the Eardley Plateau (a cool, damp climate, mixed boreal forests with a concentration of wetlands, swamps, beaver ponds and peat bogs); and the Eardley Escarpment (a hot, dry micro-climate, hardwood forests, rocky cliffs and taluses, streams and waterfalls).

The purpose of this report is to raise awareness of lichens as a significant part of the park flora and to provide a reference for future studies. The report is also meant as a testament to the dedication and talent of Dr. Irwin M. Brodo who, for over four decades, strived to identify the lichens of Gatineau Park and to conserve specimens in the National Lichen Herbarium of Canada for study by scientists and students from around the world.

Methods

The following list was developed on the basis of observations and collections made during numerous visits to the park over several years. Samples were collected for microscopic examination, chemical testing and comparison with herbarium material and standard keys (Brodo 1988; Brodo *et al.* 2001; Smith, *et al.* 2009). Unless otherwise indicated, specimens were determined or confirmed by Irwin Brodo. Selected specimens were sent to experts in specific genera for determination or confirmation. Nomenclature and authorities follow Esslinger (2010). With a few exceptions, vouchers are stored in the National Lichen Herbarium of Canada (CANL).

Previous reports

Of three early flora studies of the Ottawa Region, neither Billings (186-?) nor Fletcher (18--?) included lichens. However, Macoun (1898; 1906) reported 152 lichens from the region, 62 of which were from areas ("Meeche's Lake", "King's Mt." and "west of Chelsea") that are within or close to the boundaries of what is now known as Gatineau Park. In more recent times, Brodo (1967a,b; 1972; 1981; 1988) identified 427 lichens from the region (i.e., within a 48 kilometre radius of the city center) according to province of origin—Ontario and/or Quebec—but not related to specific localities.

List of species

Notes on relative frequency of species are based on observations made during numerous and far-ranging excursions in the park and not on population studies. "Rare" indicates three or fewer sightings or collections, and "infrequent" four to twelve sightings. Otherwise, species are considered relatively common. Some species are noted as rare throughout the park but are found in relative abundance at one or more localities. Substrates are described for representative specimens only

and no attempt has been made to report all observed or possible substrates for particular species. Taxa with an asterisk (*) are saprophytic fungi that live on decaying organic matter such as dead wood. Taxa with two asterisks (**) are lichenicolous fungi that live on lichens.

Acarospora cf. *badiofusca* (Nyl.) Th. Fr. On calcareous rock on an island in MacDonald Bay, Lac Meech. Rare.

Acarospora fuscata (Schrader) Arnold. On siliceous rock near Lac La Pêche.

Acarospora glaucocarpa (Ach.) Körber. On marble at base of King Mt.

Amandinea dakotensis (H. Mag.) P. May & Sheard. On twigs near Luskville Falls. Determined by John Sheard (SASK).

Amandinea polyspora (Willey) E. Lay & P. May. On twigs at foot of the escarpment near Farris Creek. Rare.

Amandinea punctata (Hoffm.) Coppins & Scheid. On *Thuja* near Lac La Pêche.

Anaptychia palmulata (Michaux) Vainio. On *Betula alleghaniensis* near Lac Meech.

Arthonia byssacea (Weigel) Almq. On *Acer* on an island in MacDonald Bay, Lac Meech. Brodo, personal observation.

Arthonia caesia (Flotow) Körber. On streamside *Acer saccharum* near Lac La Pêche.

Arthonia dispersa (Schrader) Nyl. On streamside *Acer saccharum* near Lac Charette. Sighted; voucher missing.

Arthonia radiata cf. (Pers.) Ach. On *Fagus* near Lac La Pêche.

Arthothelium anastomosans (Ach.) Arnold. On *Populus* stump on an island in MacDonald Bay, Lac Meech. Rare.

Arthothelium ruanum (A. Massal.) Körber. On trees near Old Chelsea. Rare.

Aspicilia cinerea (L.) Körber. On siliceous rock near Luskville Falls.

Aspicilia cf. *laevata (*Ach.) Arnold. On streamside rock near Eardley-Masham Rd.

Aspicilia verrucigera Hue. On siliceous rock near Lac Ramsay.

Bacidia schweinitzii (Fr. ex E. Michener) A. Schneider. On bark near Lac La Pêche.

Bacidia suffusa (Fr.) A. Schneider. On *Tilia americana* near Lac La Pêche. Infrequent.

Bacidina inundata (Fr.) Vězda. On partially submerged siliceous rock at the foot of the escarpment near Farris Creek. Rare.

Baeomyces rufus (Hudson) Rebent. On soil near Kidder Lake.

Baglietoa calciseda (DC.) Gueidan & Cl. Roux. On marble at base of King Mt.

Bellemerea cinereorufescens (Ach.) Clauzade & Roux. On rock near Lac Ramsay. Sighted; voucher missing. Rare.

Biatora vernalis (L.) Fr. On mossy rock near Lac Taylor.

Bryoria furcellata (Fr.) Brodo & D. Hawksw. On conifers near Lac Ramsay. Infrequent.

Buellia stillingiana J. Steiner. On *Quercus rubra* near Luskville fire tower.

Calicium trabinellum (Ach.) Ach. On snag next to swamp near Lac La Pêche. Infrequent.

Caloplaca ahtii Søchting. On *Populus tremuloides* near Luskville fire tower.

Caloplaca arenaria (Pers.) Müll. Arg. On siliceous rock near Champlain Lookout.

Caloplaca cerina (Ehrh. ex Hedwig) Th. Fr. On *Populus tremuloides* on Trail 26 near Boulevard de la Cité-des-Jeunes. Determined by C. E. Freebury.

Caloplaca feracissima H. Magn. On calcareous rock at base of King Mt. Determined by C. E. Freebury.

Caloplaca flavorubescens (Hudson) J. R. Laundon. On fence posts near base of King Mt. Infrequent.

Caloplaca flavovirescens (Wulfen) Dalla Torre & Sarnth. On marble at base of King Mt.

Caloplaca holocarpa (Hoffm. ex Ach.) A. E. Wade. On marble at base of King Mt.

Caloplaca microphyllina (Tuck.) Hasse. On fence posts near Eardley-Masham Rd.

Caloplaca sideritis (Tuck.) Zahlbr. On siliceous rock near waterfall off Eardley-Masham Rd. Infrequent.

Caloplaca subsoluta (Nyl.) Zahlbr. On acidic rock at base of King Mt. Determined by C. E. Freebury. Rare.

Candelaria concolor (Dickson) Stein. On *Fraxinus* at base of King Mt.

Candelariella aurella (Hoffm.) Zahlbr. On abandoned concrete near the Luskville fire tower.

Candelariella efflorescens R. C. Harris & W. R. Buck. On *Ostrya virginiana* near Luskville Falls.

Candelariella vitellina (Hoffm.) Müll. Arg. On siliceous rock near Luskville Falls.

Candelariella xanthostigma (Ach.) Lettau. On *Thuja occidentalis* near north shore of Lac Philippe.

Catillaria glauconigrans (Tuck.) Hasse. On bark near Lac La Pêche. Sighted; voucher missing. Rare.

Catillaria nigroclavata (Nyl.) Schuler. On bark near Lac Richard. Determined by C. E. Freebury.

Cetrelia olivetorum (Nyl.) W. Culb. & C. Culb. On vertical rock face near Lac Ramsay.

Chaenotheca xyloxena Nádv. On wood near King Mt. Determined by Steve Selva. Rare.

**Chaenothecopsis debilis* (Turner & Borrer ex Sm.) Tibell. Parasitic on *Thuja* snag near beaverpond in Kingsmere area.

**Chaenothecopsis* sp., ined. On wood near MacDonald Bay, Lac Meech. With Leif Tibell for determination. Rare.

Chrismofulvea dialyta (Nyl.) Marbach. On *Tsuga canadensis* near Old Chelsea. Infrequent.

Cladonia botrytes (K. G. Hagen) Willd. On log near Lac Meech. Infrequent.

Cladonia caespiticia (Pers.) Flörke. Base of *Abies balsamea* near Richard Lake. Infrequent.

Cladonia cariosa (Ach.) Sprengel. On soil near Champlain Lookout.

Cladonia cenotea (Ach.) Schaerer. On mossy stump between Lac Ramsay and Lac Hawley.

Cladonia cervicornis subsp. *verticillata* (Hoffm.) Ahti. On mossy stump near Lac Philippe.

Cladonia chlorophaea (Flörke ex Sommerf.) Sprengel. On soil near Luskville Falls.

Cladonia coniocraea (Flörke) Sprengel. On mossy log near Lac La Pêche.

Cladonia crispata (Ach.) Flotow var. *crispata*. On soil between Lac Ramsay and Lac Blind.

Cladonia cristatella Tuck. On wood near Luskville Falls.

Cladonia cryptochlorophaea Asahina On base of *Thuja* near Lac La Pêche.

Cladonia cylindrica (A. Evans) A. Evans. On charred stump near Lac Ramsay. Infrequent.

Cladonia dahliana Kristinsson. On calcareous, rocky soil near Church Hill picnic area.

Cladonia deformis (L.) Hoffm. On log on shore of Lac Richard. Determined by C. E. Freebury.

Cladonia digitata (L.) Hoffm. On mossy wood off Trail 53.

Cladonia fimbriata (L.) Fr. On soil near Lac Bourgeois.

Cladonia furcata (Hudson) Schrader. On mossy soil near Lac Ramsay.

Cladonia gracilis subsp. *turbinata* (Ach.) Ahti. On soil near Hope's Trail, Lac Meech.

Cladonia grayi G. Merr. ex Sandst. On soil near Lac Ramsay.

Cladonia humilis (With.) J. R. Laundon. On soil near Lac Ramsay. Infrequent.

Cladonia macilenta Hoffm. On vertical rock between Lac Ramsay and Lac Blind.

Cladonia macilenta var. *bacillaris* (Genth) Schaerer On vertical rock near Luskville Falls.

Cladonia magyarica Vainio. On calcareous, rocky soil off Trail 26 near Boulevard de la Cité-des-Jeunes. Determined by C. E. Freebury. Infrequent.

Cladonia mitis Sandst. On soil near Luskville Falls.

Cladonia multiformis G. Merr. On soil near Luskville Falls.

Cladonia ochrochlora Flörke. On soil in forest glade near Kidder Lake.

Cladonia parasitica (Hoffm.) Hoffm. On wood near Kidder Lake.

Cladonia phyllophora Hoffm. On soil near Lac Bourgeois.

Cladonia pleurota (Flörke) Schaerer. On soil near Lac Meech.

Cladonia pyxidata (L.) Hoffm. On soil at base of King Mt.

Cladonia ramulosa (With.) J. R. Laundon. On a log on an island in MacDonald Bay, Lac Meech. Infrequent.

Cladonia rangiferina (L.) F. H. Wigg. On soil near Luskville Falls.

Cladonia rei Schaerer. On soil near Lac Bourgeois.

Cladonia mitis. *In forest clearing off Trail 52.*

Cladonia scabriuscula (Delise) Nyl. On soil near Lac Philippe.
Cladonia squamosa Hoffm. On soil near Lac Ramsay.
Cladonia stellaris (Opiz) Pouzar & Vězda. On soil near Luskville Falls.
Cladonia turgida Hoffm. On soil near Luskville Falls.
Cladonia uncialis (L.) F. H. Wigg. On soil near Luskville Falls.
****Clypeococcum hypocenomyces* D. Hawksw. Parasitic on *Hypocenomyce scalaris* near Notch Rd. at Old Chelsea. Determined by C. E. Freebury.
Collema coccophorum Tuck. On marble at base of King Mt. Infrequent
Collema fuscovirens (With.) J. R. Laundon. On calcareous rock at base of King Mt.
Collema subflaccidum Degel. On vertical rock near Luskville Falls.
Collema tenax (Sw.) Ach. On marble at base of King Mt.
Conotrema urceolatum (Ach.) Tuck. On *Acer saccharum* near Luskville Falls.
Cresponea chloroconia (Tuck.) Egea & Torrente. On *Betula alleghaniensis* near Lac Meech.
Cyphelium tigillare (Ach.) Ach. On fence posts near the foot of the escarpment at Gibson Rd.
Dermatocarpon luridum (With.) J. R. Laundon. On streambed rock near Lac La Pêche.
Dermatocarpon miniatum s. lat. (L.) W. Mann. On limestone cliff on King Mt.

Dimelaena oreina (Ach.) Norman. On siliceous rock at Luskville Falls.

Diploschistes muscorum (Scop.) R. Sant. Lichenicolous. On *Cladonia* near Luskville Falls. Typically this species becomes independent with maturity, but I have not observed this in the park. Determined by H. T. Lumbsch. Infrequent.

Diploschistes scruposus (Schreber) Norman. On rock near Lac Ramsay.

Endocarpon diffractellum (Nyl.) Gueidan & Cl. Roux. On siliceous rock at base of King Mt. Rare.

Endocarpon pusillum Hedwig. On marble at base of King Mt.

Evernia mesomorpha Nyl. On *Abies* near Lac Ramsay.

Flavoparmelia baltimorensis (Gyelnik & Fóriss) Hale. On rock near Luskville Falls.

Flavoparmelia caperata (L.) Hale. On *Quercus rubra* near Luskville Falls.

Flavopunctelia flaventior (Stirton) Hale. On *Acer* at Luskville Falls. Rare.

Flavopunctelia soredica (Nyl.) Hale. On *Prunus* near Notch Rd. Rare.

Graphis scripta (L.) Ach. On *Picea mariana* between Lac Ramsay and Lac Hawley.

Halecania rheophila R. C. Harris & Ladd, ined. On shaded siliceous rock at base of King Mt. Rare.

Hyperphyscia adglutinata (Flörke) H. Mayrh. & Poelt. On base of *Acer rubrum* near Lac La Pêche.

Hypocenomyce anthracophila (Nyl.) P. James & Gotth. Schneider. On charred stump at foot of escarpment at Gibson Rd.

Hypocenomyce scalaris (Ach.) M. Choisy. On charred stump near Luskville Falls.

Hypogymnia physodes (L.) Nyl. On *Picea mariana* near Lac Ramsay.

***Illosporiopsis christiansenii* (B. L. Brady & D. Hawksw.) D. Hawksw. Parasitic on *Physcia* near Luskville Falls. Rare.

***Illosporium carneum* Fr. Parasitic on *Peltigera* near Lac Ramsay.

Imshaugia aleurites (Ach.) S. F. Meyer. On dead *Picea mariana* between Lac Ramsay and Lac Hawley.

Ionaspis alba Lutzoni. On siliceous rock in forest near Old Chelsea. New for the park. Rare.

Ionaspis lacustris (With.) Lutzoni. On siliceous rock in stream at Luskville Falls.

Julella fallaciosa (Arnold) R. C. Harris. On *Acer rubrum* at Kirk's Ferry, at Lac Meech.

Lasallia papulosa (Ach.) Llano. On rock near Luskville Falls.

Lecania croatica (Zahlbr.) Kotlov. On *Tilia americana* near Old Chelsea. New for the Park.

Lecanora albella var. *rubescens* (Imshaug & Brodo) Lumbsch. On *Thuja* near bog between Lac Ramsay and Lac Hawley. Infrequent.

Lecanora allophana Nyl. On *Fraxinus nigra* near Lac Ramsay.

Lecanora argentea Oxner & Volkova. On siliceous rock on the escarpment near Eardley- Masham Rd. Rare.

Lecanora caesiorubella Ach. subsp. *caesiorubella*. On *Quercus rubra* near Lac Ramsay.

Lecanora cenisia Ach. On siliceous rock near waterfall by Eardley-Masham Rd.
Lecanora cinereofusca H. Magn. var. *cinereofusca*. On *Acer* near Lac Meech.
Lecanora crenulata (Dicks.) Hooker. On marble at base of King Mt. Confirmed by L. Śliwa. Rare.
Lecanora dispersa (Pers.) Sommerf. On fence posts at base of King Mt.
Lecanora glabrata (Ach.) Malme. On *Quercus rubra* near Lac Bourgeois.
Lecanora hagenii (Ach.) Ach. On fence posts at base of King Mt. Confirmed by L. Śliwa.
Lecanora hybocarpa (Tuck.) Brodo. On *Quercus rubra* near Luskville Falls.
Lecanora impudens Degel. On *Populus* between Lac Ramsay and Lac Hawley.
Lecanora muralis (Schreber) Rabenh. On marble at base of King Mt.
Lecanora opiniconensis Brodo. On siliceous rock at Lac La Pêche. Holotype.
Lecanora polytropa (Hoffm.) Rabenh. Collected in the Quebec part of the Ottawa Region and included as very likely to occur in the park, as well.
Lecanora pseudistera Nyl. On rock outcrop at Luskville Falls. Infrequent.
Lecanora pulicaris (Pers.) Ach. On *Acer rubrum* Between Ramsayand Lac Hawley.
Lecanora rugosella Zahlbr. On *Thuja* between Lac Ramsay & Lac Hawley.
Lecanora sambuci (Pers.) Nyl. On *Ulmus* at Pink Lake. Rare.
Lecanora subintricata (Nyl.) Th. Fr. On dead *Ulmus* between Lac Ramsay and Lac La Pêche.
Lecanora symmicta (Ach.) Ach. On *Populus* between Lac Ramsay and Lac Hawley.
Lecanora thysanophora Harris. On *Populus* near Lauriault Trail on King Mt. Determined by C. E. Freebury.
Lecanora valesiaca (Müll. Arg.) Stizenb. On limestone cliff, King Mt. Rare.
Lecanora weberi Ryan. On exposed siliceous rock, Lac Taylor. Rare.
Lecidea ahlesii (Körber) Nyl. On streamside rock off Eardley-Masham Rd. Rare.
Lecidea "lapicida group". On siliceous rock near Luskville Falls. Infrequent.
Lecidea promiscens Nyl. On siliceous rock at Luskville Falls. Normally a western species. With slightly wider spores and somewhat different anatomical features than the closely related *L. auriculata*.
Lecidella stigmatea (Ach.) Hertel & Leuckert. On marble at base of King Mt.
Leimonis erratica (Körber) R. C. Harris & Lendemer. On siliceous rock on escarpment near Champlain Lookout.
Lepraria adhaerens K. Knudsen, Elix & Lendemer. On granitic rock in forest near Old Chelsea. Determined by James C. Lendemer.
Lepraria incana (L.) N. Am. auct. On base of *Pinus strobus* near Luskville Falls.
Lepraria lobificans Nyl. On rock face in *Acer* forest near Lac La Pêche.
Lepraria membranacea s. lat. (Dickson) Vainio. On rock face in forest, Luskville Falls.
Lepraria neglecta (Nyl.) Erichsen. On rock in forest, Lac La Pêche.
Lepraria normandinoides Lendemer & R. C. Harris. On rock face near Hickory Trail.

Leptogium cyanescens (Rabenh.) Körber. On streamside rocks near Luskville Falls.
Leptogium dactylinum Tuck. On limestone cliffs on King Mt. Rare.
Leptogium lichenoides (L.) Zahlbr. On *Fraxinus nigra* near Lac La Pêche. Infrequent.
Lichinella nigritella (Lettau) P. Moreno & Egea. On cliff face, King Mt. Rare.
Lithothelium hyalosporum (Nyl.) Aptroot. On *Tilia* near Lac La Pêche.
Lobaria pulmonaria (L.) Hoffm. On *Fraxinus nigra* at Lac Ramsay.
Lobaria quercizans Michaux. On *Fraxinus nigra* at Lac Ramsay.
Loxospora elatina (Ach.) A. Massal. On *Tsuga* near Lac Meech. Infrequent
Loxospora pustulata (Brodo & W. L. Culb.) R.C. Harris. On *Pinus strobus* between Lac Ramsay and Lac Hawley. Infrequent.
Melanelia disjuncta (Erichsen) Essl. On exposed rock at Luskville Falls. Annotated by T. Esslinger.
Melanelia sorediata (Ach.) Goward & Ahti. On siliccous rock ncar swamp at Lac Ramsay.
Melanelixia subaurifera (Nyl.) O. Blanco *et al.* On *Ostrya virginiana* near Luskville Falls.
Melanohalea exasperatula (Nyl.) O. Blanco *et al.* On fallcn *Populus* near Lac La Pêche.
Melanohalea olivacea (L.) O. Blanco *et al.* On *Quercus rubra*, Luskville Falls. Infrequent.
Micarea bauschiana (Körber) V. Wirth & Vězda. Over moss and rock on shaded outcrop near Old Chelsea. Rare
Micarea peliocarpa (Anzi) Coppins & R. Sant. On conifer log near Trail 54, Lac Renaud.
Micarea prasina Fr. On charred stump on the escarpment near Gibson Rd.
Multiclavula muscida (Fr.) R. Petersen. On rotting log at Black Lake. Rare.
Mycobilimbia berengeriana (A. Massal.) Hafellner & V. Wirth. On moss on north shore of Pink Lake.
Mycoblastus caesius (Coppins & P. James) Tønsberg. On fallen *Acer saccharum* near Old Chelsea. Ncw for the Park. Rare.
**Mycocalicium subtile* (Pers.) Szatala. Parasitic on dead *Picea mariana*, between Lac Ramsay and Lac Hawley.
Myelochroa aurulenta (Tuck.) Élix & Hale. On *Fraxinus nigra*, between Lac Ramsay and Lac Hawley.
Myelochroa galbina (Ach.) Elix & Hale. On *Acer saccharum*, Luskville Falls. Infrequent.
Myxobilimbia sabuletorum (Schreber) Hafellner. On *Thuja* between Lac Ramsay and Lac Hawley.
Nephroma bellum (Sprengel) Tuck. On mossy rock off Trail 05, near Boulevard dc la Cité-dcs-Jcunes. Rare throughout the park but common locally.

Nephroma helveticum Ach. var. *helveticum*. On mossy rock off Trail 05, near Boulevard de la Cité-des-Jeunes. Rare throughout the park but common locally.

Nephroma parile (Ach.) Ach. On mossy rock in Kingsmere area.

Ochrolechia androgyna (Hoffm.) Arnold. On *Betula* near Kirk's Ferry at Lac Meech.

Ochrolechia arborea (Kreyer) Almb. On dying *Picea mariana* between Lac Ramsay and Lac Hawley. Determined by R. C. Harris.

Ochrolechia pseudopallescens Brodo. On *Pinus strobus* between Lac Ramsay and Lac Hawley.

Ochrolechia trochophora (Vainio) Oshio var. *trochophora*. On *Acer saccharum* near Lac Bourgeois. Infrequent.

Parmelia saxatilis (L.) Ach. On vertical rock face between Lac Ramsay and Lac Blind.

Parmelia squarrosa Hale. On *Fraxinus nigra* near Lac Ramsay.

Parmelia sulcata Taylor. On *Populus* near Luskville Falls.

Parmeliella triptophylla (Ach.) Müll. Arg. On base of *Quercus* off Trail 05 near Boulevard de la Cité-des-Jeunes. Rare.

Parmeliopsis ambigua (Wulfen) Nyl. On *Pinus banksiana* near Luskville Falls.

Parmeliopsis capitata R. C. Harris ex J. W. Hinds & P. L. Hinds. On *Picea mariana* in bog near Lac Ramsay.

Parmeliopsis hyperopta (Ach.) Arnold. On *Picea mariana* in bog near Lac Ramsay.

Parmotrema crinitum (Ach.) M. Choisy. On trees near Lac Meech. Rare in Ottawa Region.

Peltigera aphthosa (L.) Willd. On mossy rock near Taylor Lake.

Peltigera canina (L.) Willd. On soil near Champlain Lookout.

Peltigera elisabethae Gyelnik. On streamside rock ledge near Eardley-Masham Rd.

Peltigera evansiana Gyelnik. On rock ledge between Lac Ramsay and Lac Blind.

Peltigera extenuata (Vainio) Lojka. In cracks in siliceous rock at Champlain Lookout.

Peltigera lepidophora (Nyl. ex Vainio) Bitter. On soil at Champlain Lookout. Infrequent.

Peltigera leucophlebia (Nyl.) Gyelnik. On base of *Thuja* near Lac La Pêche.

Peltigera neckeri Hepp ex Müll. Arg. On mossy rock, Black Lake.

Peltigera polydactylon (Necker) Hoffm. On rock, Lac La Pêche.

Peltigera ponojensis Gyelnik. On soil near MacDonald Bay, Lac Meech.

Peltigera praetextata (Flörke ex Sommerf.) Zopf. On trailside soil, Lac Meech.

Peltigera rufescens (Weiss) Humb. On soil, Luskville Falls.

Pertusaria alpina Hepp ex Ahles. On *Betula alleghaniensis*, Lac Charette Trail near Luskville Falls.

Pertusaria amara (Ach.) Nyl. On bark near Lac La Pêche.

Pertusaria globularis (Ach.) Tuck. On siliceous rock on King Mt. Rare.

Pertusaria leioplaca DC. On *Fraxinus nigra* between Lac Ramsay and Lac Hawley.
Pertusaria macounii (Lamb) Dibben. On *Betula alleghaniensis* near Lac La Pêche.
Pertusaria rubefacta Erichsen. On *Fraxinus nigra* near Lac Ramsay.
Pertusaria trachythallina Erichsen. On *Quercus rubra* between Lac Ramsay and Lac Blind. Infrequent.
Pertusaria velata (Turner) Nyl. On *Acer saccharum* near Lac La Pêche.
Pertusaria sp. On bark near Lac Philippe.
**Phaeocalicium curtisii* (Tuck.) Tibell. Parasitic on *Rhus typhina* near Gamelin Rd. entrance. Determined by C. E. Freebury.
**Phaeocalicium minutissimum* (Merrill) Selva. Parasitic on *Quercus rubra* saplings near King Mt. Rare.
**Phaeocalicium polyporaeum* (Nyl.) Tibell. Parasitic on *Tricaptum* sp. (polypore) near Old Chelsea.
Phaeophyscia adiastola (Essl.) Essl. On shaded rock near Lac La Pêche.
Phaeophyscia ciliata (Hoffm.) Moberg. On *Populus tremuloides* near Lac Ramsay.
Phaeophyscia endococcina (Körber) Moberg. On marble at base of King Mt. Rare.
Phaeophyscia hirsuta (Mereschk.) Essl. On marble at base of King Mt. Rare.
Phaeophyscia hirtella Essl. On *Ulmus* near Luskville Falls. Rare.
Phaeophyscia hispidula (Ach.) Essl. On marble at base of King Mt.
Phaeophyscia orbicularis (Necker) Moberg. On *Ulmus glabra* at Pink Lake. Determined by T. Goward.
Phaeophyscia pusilloides (Zahlbr.) Essl. On *Acer* off Trail 52. Determined by C. E. Freebury.
Phaeophyscia rubropulchra (Degel.) Essl. On *Ostrya virginiana* off Lac Charette Trail near Luskville Falls.
Phaeophyscia sciastra (Ach.) Moberg. On marble at base of King Mt.
Phaeophyscia squarrosa Kashiwadani. On marble at base of King Mt.
Phlyctis speirea G. Merr. On *Thuja occidentalis* between Lac Ramsay and Lac Hawley.
***Phoma cytospora* (Vouaux) D. Hawksw. Forming discoloured, deadened patches on thallus of *Parmelia sulcata*; conidiomata pycnidial, brown, immersed to partially immersed. Trail 53 near La Pêche River. Determined by C. E. Freebury (Hawksworth 1981, Hawksworth & Cole 2004). Rare, probably overlooked.
***Phoma* cf. *physciicola* Keissl. In apothecia of *Physcia aipolia*. Trail 53 near La Pêche River. With P. Diederich for confirmation. Rare.
Physcia adscendens (Fr.) H. Olivier. On *Acer rubrum* near Lac La Pêche.
Physcia aipolia (Ehrh. ex Humb.) Fürnr. var. *aipolia*. On dead *Acer saccharum* near Lac La Pêche.
Physcia caesia (Hoffm.) Fürnr. On exposed siliceous rock near Eardley Rd. entrance.
Physcia millegrana Degel. On *Acer saccharum* at Pink Lake.

Physcia phaea (Tuck.) J. W. Thomson. On lakeside rock between Lac Ramsay and Lac Blind.

Physcia stellaris (L.) Nyl. On *Salix* off Trail 53 near La Pêche River. Lobes of some specimens maculate and pruinose. Determined by C. E. Freebury.

Physcia stenostellaris, ined. On *Fraxinus* at Gamelin Rd. entrance. Lobes narrow, pruinose. Determined by C. E. Freebury.

Physcia subtilis Degel. On siliceous rock on escarpment at Farris Creek.

Physciella melanchra (Hue) Essl. On limestone on an island in MacDonald Bay, Lac Meech.

Physconia detersa (Nyl.) Poelt. On base of *Quercus* near Luskville Falls.

Physconia enteroxantha (Nyl.) Poelt. On *Juglans cinerea* at Pink Lake. Determined by T. Goward; confirmed by T. Esslinger.

Physconia perisidiosa (Erichsen) Moberg. On *Thuja* on an island in MacDonald Bay, Lac Meech.

Placopyrenium fuscellum (Turner) Gueidan & Cl. Roux. On marble at base of King Mt.

Placynthiella icmalea (Ach.) Coppins & P. James. On rotting log near Lac Ramsay.

Placynthiella uliginosa (Schrader) Coppins & P. James. On trailside log near Lac Ramsay.

Placynthium flabellosum (Tuck.) Zahlbr. On streamside rock at Luskville Falls. Infrequent.

Placynthium nigrum (Hudson) Gray. On marble at base of King Mt.

Platismatia tuckermanii (Oakes) W. Culb. & C. Culb. On *Thuja occidentalis* between Lac Ramsay and Lac Hawley. Infrequent.

Polysporina simplex (Davies) Vězda. On siliceous rock near Luskville Falls.

Porpidia albocaerulescens (Wulfen) Hertel & Knoph. On shaded, siliceous rock, Lac La Pêche.

Porpidia crustulata (Ach.) Hertel & Knoph. On siliceous rock, Lac La Pêche.

Porpidia macrocarpa (DC) Hertel & A. J. Schwab. On exposed rock near Old Chelsea.

Porpidia subsimplex (H. Magn.) Fryday. On siliceous rock, Luskville Falls.

Psilolechia lucida (Ach.) M. Choisy. On rock wall near Lac La Pêche. Infrequent.

Psora pseudorussellii Timdal. On marble at base of King Mt. Infrequent.

Psorotichia schaereri (A. Massal.) Arnold. On limestone at base of King Mt. Rare.

Punctelia bolliana (Müll. Arg.) Krog. On *Acer rubrum* near Lac Meech. Sighted; voucher missing.

Punctelia caseana Lendemer & Hodkinson. On *Quercus rubra* on the escarpment near Gibson Rd. Determined by C. E. Freebury.

Punctelia rudecta (Ach.) Krog. On *Pinus strobus* near Luskville Falls.

Pyrenula laevigata (Pers.) Arnold. On old *Acer saccharum* near Old Chelsea. Rare. New for the park.

Pyrenula pseudobufonia (Rehm) R. C. Harris. On *Fagus* near Lac La Pêche.

Pyxine sorediata (Ach.) Mont. On *Fraxinus nigra* between Lac Ramsay and Lac Hawley.

Ramalina americana. *On* Juglans cinera *near Lac Taylor.*

Ramalina americana Hale. On *Juglans cinera* on the escarpment at Church Hill.
Ramalina intermedia (Delise ex Nyl.) Nyl. On vertical rock face near Lac Ramsay.
Ramboldia elabens (Fr.) Kantvilas & Elix. On exposed stump at Luskville Falls; on exposed stump. Infrequent.
Rhizocarpon badioatrum (Flörke ex Sprengel) Th. Fr. On acidic rock on the escarpment at Gibson Rd.
Rhizocarpon grande (Flörke ex Flotow) Arnold. On siliceous rock at Luskville Falls.
Rhizocarpon hochstetteri s. lat. (Körber) Vainio. On shaded rock in forest near Lac La Pêche. Sighted; voucher missing.
Rhizocarpon lavatum (Fr.) Hazsl. On siliccous rock near Luskville Falls.
Rhizocarpon lecanorinum Anders. On siliceous rock on escarpment at Farris Creek. Determined by C. E. Freebury.
Rhizocarpon reductum Th. Fr. On siliceous rock in forest at Lac La Pêche.
Rhizocarpon rubescens Th. Fr. On rock ridge at Lac La Pêche. Infrequent.
Rhizocarpon tetramerum (Vainio) Vainio. On rock ridge at Lac La Pêche. Infrequent.
Rhizoplaca subdiscrepans (Nyl.) R. Sant. On siliceous rock at Luskville Falls.
Rinodina ascociscana Tuck. On streamside *Acer saccharum* near Lac Charette.

Rinodina bischoffii (Hepp) A. Massal. On marble at base of King Mt. Rare.
Rinodina efflorescens Malme. On *Acer saccharum* near Lac La Pêche.
Rinodina excrescens Vainio. On *Thuja* on an island in MacDonald Bay, Lac Meech. Rare.
Rinodina fimbriata Körber. On siliceous rock near stream off Eardley-Masham Rd. Rare.
Rinodina freyi H. Magn. On *Acer saccharum* near Lac La Pêche.
Rinodina pachysperma H. Magn. On bark near Luskville Falls. Determined by John Sheard. Rare.
Rinodina polyspora Th. Fr. On bark near Luskville Falls. Determined by John Sheard. Rare.
Rinodina populicola H. Magn. On *Populus* at Luskville Falls. Determined by John Sheard. Infrequent.
Rinodina siouxiana Sheard. On siliceous rock at foot of King Mt. Rare.
Rinodina subminuta H. Magn. On *Fraxinus nigra* between Lac Ramsay and Lac Hawley.
Rinodina tephraspis (Tuck.) Herre. On rock near waterfall off Eardley-Masham Rd. Confirmed by John Sheard. Infrequent.
Sarcogyne clavus (DC.) Kremp. On streamside siliceous rock at Luskville Falls.
Sarcogyne privigna (Ach.) A. Massal. On siliceous rock near Luskville Falls.
Sarcogyne regularis Körber. On marble at base of King Mt.
**Sarea resinae* (Fr.) Kuntze. On *Thuja occidentalis* on north shore of Lac Philippe. Infrequent.
Scoliciosporum chlorococcum (Stenh.) Vězda. On *Populus grandifolia* near Luskville Falls.
Scoliciosporum umbrinum (Ach.) Arnold. On siliceous rock at base of King Mt. Infrequent.
Solorina saccata (L.) Ach. On rock ledge on north shore of Pink Lake. Infrequent
Staurothele fissa (Taylor) Zwackh. On siliceous rock near Luskville Falls.
Stereocaulon condensatum Hoffm. On sandy soil in abandoned picnic area at Lac Ramsay. Rare throughout the park but common locally.
Stereocaulon saxatile H. Magn. On rock ridge at Lac La Pêche and on the escarpment.
Stereocaulon tomentosum Fr. On sandy soil at Lac Ramsay.
Strigula stigmatella (Ach.) R. C. Harris. On *Thuja* on an island in MacDonald Bay, Lac Meech.
Thelidium decipiens (Nyl.) Kremp. On limestone near stream at base of King Mt.
Thrombium epigaeum (Pers.) Wallr. On soil at Lac Ramsay. Infrequent
Thyrea confusa Henssen. On limestone cliffs on King Mt. Rare.
Trapelia glebulosa (Sm.) J. R. Laundon. On trailside pebbles near Luskville Falls.
Trapelia obtegens (Th. Fr.) Hertel. On granitic rock overlooking beaver pond near Old Chelsea. Rare.

Trapeliopsis flexuosa (Fr.) Coppins & P. James. On rotting log near Trail 53 at Parking Lot 17. First for Ottawa Region but common in Southern Ontario. Infrequent.

Trapeliopsis granulosa (Hoffm.) Lumbsch. On soil at Luskville Falls.

Trapeliopsis viridescens (Schrader) Coppins & P. James. On old stump near Lac Richard. Rare.

Trypethelium virens Tuck ex Michener. On *Fagus* on King Mt. Rare. Sighted; voucher missing.

Tuckermannopsis americana (Sprengel) Hale. On *Abies* between Lac Ramsay and Lac Blind.

Tuckermannopsis orbata (Nyl.) M.J. Lai. On dead *Thuja* Lac La Pêche. Infrequent.

Usnea filipendula. *On tree near Trail 53.*

Tuckermannopsis sepincola (Ehrh.) Hale. On *Picea mariana* in bog near Lac Ramsay.

Umbilicaria americana Poelt & T. Nash. On King Mt. on rock face.

Umbilicaria deusta (L.) Baumg. On granite at Lac La Pêche.

Umbilicaria mammulata (Ach.) Tuck. On rock face at Lac Ramsay.

Umbilicaria muehlenbergii (Ach.) Tuck. On rock ridge at Luskville Falls.

Usnea filipendula Stirton. On *Abies* at Lac Ramsay.

Usnea hirta (L.) F. H. Wigg. On *Picea mariana* in bog near Lac Ramsay.
Usnea subfloridana Stirton. On *Picea abies* off Trail 53 near Parking Lot 17.
Usnocetraria oakesiana (Tuck.) M. J. Lai & C. J. Wei. On rock near Eardley-Masham Rd.
Vahliella leucophaea (Vahl) P. M. Jørg. On trailside rock face at Luskville Falls.
Verrucaria aethiobola Wahlenb. On streamside rock off Eardley-Masham Rd.
Verrucaria glaucovirens Grummann. On marble at base of King Mt.
Verrucaria muralis Ach. On marble at base of King Mt.
Verrucaria nigrescens Pers. On marble at base of King Mt.
Verrucaria nigrescentoidea Fink. On sandy soil near Kidder Lake. Infrequent.
Verrucaria cf. *viridula* (Schrader) Ach. On siliceous rock at Lac Ramsay. Rare.
Vulpicida pinastri (Scop.) J.-E. Mattsson & M. J. Lai. On *Picea mariana* in bog near Lac Ramsay.
Xanthomendoza fallax (Hepp ex Arnold) Søchting, Kärnefelt & S. Kondr. On *Ulmus americana* at Pink Lake.
Xanthomendoza hasseana (Räsänen) Søchting, Kärnefelt & S. Kondr. On *Populus tremuloides* near Lac Ramsay.
Xanthomendoza ulophyllodes (Räsänen) Søchting, Kärnefelt & S. Kondr. On acidic rock off Trail 05, near Boulevard de la Cité-des-Jeunes.
Xanthoparmelia conspersa (Ehrh. ex Ach.) Hale. On siliceous rock near Lac Ramsay.
Xanthoparmelia cumberlandia (Gyelnik) Hale. On exposed rock on King Mt.
Xanthoparmelia plittii (Gyelnik) Hale. On acidic rock near Luskville Falls.
Xanthoparmelia stenophylla (Ach.) Ahti & D. Hawksw. On rock ridge at Luskville Falls.
Xanthoria elegans (Link) Th. Fr. On marble at base of King Mt.

Discussion

One hundred and seventeen lichen genera and 324 lichen species are reported for Gatineau Park. Of these, 129 species occur on rock, 121 on trees, 37 on soil, 30 on dead wood and 7 on moss/mossy rock. (*Diploschistes muscorum* is counted here as musicolous.)

Forty seven species are rare for the park. *Arthothelium anastomosans* (one of only three collected in the region; the other two were collected by Macoun in 1891 and 1900) and *Parmotrema crinitum* are also rare for the Ottawa region. *Rinodina siouxiana* is a second report for Canada and new for Quebec. Forty species are found in the park infrequently. *Ionaspis alba*, *Pyrenula laevigata*, *Lecania croatica* and *Mycoblastus caesius* are new reports for the park.

Of the seven reported saprophytic fungi, *Chaenothecopsis debilis*, *Chaenothecopsis* sp. and *Phaeocalicium minutissimum* are rare for the park. *Chaenothecopsis* sp. is likely a new species. *Sarea resinae* is infrequent. Of five lichenicolous fungi, *Illosporiopsis christiansenii*, *Phoma cytospora* and *P. physciicola* are considered rare. All of these are probably overlooked. *Phoma cytospora* does not appear to have been reported previously for Canada (Diederich 2003).

Examples of specific study areas:

In the Gatineau Hills. Trail 5 near Boulevard de la Cité-des-Jeunes, Gatineau (45°27'06"N, 75°46'12"W). This trail through a hardwood forest with large erratic boulders, vernal streams and swamp land is home to a number of interesting lichens on mossy rocks, including several Peltigeras and three Nephromas, two of which are rare in the park. The rare *Lepraria normandinoides* was recently discovered at the base of an old oak tree beside this trail. Remarkably, the area is but a few hundred metres from a growing residential area in one direction, and from the Gatineau Parkway in the other.

Recent changes to the landscape at the southern end of Trail 5 have created an opportunity to study how lichens colonize rocks. In the fall of 2010, large blocks of newly hewn limestone were piled on both sides of the parkway to better mark the Gamelin Rd. park entrance. Boulders that have served as markers at this location for many years have been left in place along with an accompaniment of lichens, including on the calcareous rock, *Caloplaca feracissima*, *C. flavovirescens*, *Candelariella aurella*, *Lecanora muralis* and *Lecidella stigmatea*. It will be interesting to observe how long it takes for these and other species to establish themselves on the relatively clean surfaces of the blocks of marble, and how the process of ageing and succession unfolds over the long term.

Trail 53 near the La Pêche River, Parking Lot 17 and Highway 105 (45°37'53"N, 75°56'34"W). The area north of the parking lot, which includes mixed-forest margins, several erratic boulders, a rocky outcrop and fence posts, is rich with lichens. *Platismatia tuckermanii*, *Bryoria furcellata* and *Usnea subfloridana* grow in a stand of *Abies balsamea* less than a kilometre from the parking lot.

On the Eardley Plateau. The Ramsay Lake area near Eardley-Masham Rd. (45°35'58.91"N, 76°5'47.83"W). To protect this biologically sensitive area, visiting is no longer encouraged near the lake and adjacent trails are now closed. An abandoned picnic area is being colonized by the pioneering species *Cladonia cristatella*, *C. cervicornis* subsp. *verticillata*, *C. cariosa*, *C. multiformis*, *Stereocaulon condensatum* and *S. tomentosum*. A similar process involving the

same species can be observed on exposed slopes beneath the hydro lines near the turn-off to Camp Gatineau north of Lac Ramsay.

On the Eardley Escarpment. King Mt. (45°29'25"N, 75°51'52"W). Macoun (1898) reported collecting 45 lichens here during a memorable one-day foray. Fourteen of the rare lichens reported in this paper were found on marble cliffs at the base of the mountain, which is particularly impressive given the proximity of a heavily travelled road. Measures to limit or restrict access to the escarpment and to protect rare and endangered plants have recently been introduced.

Conclusion

The lichen flora of Gatineau Park is varied and extensive, which is especially notable given the proximity to urban areas, the volume of vehicular traffic around and though the park, and heavy recreational use. Thus far, these factors do not appear to have had an adverse affect. In fact, some species benefit from the improved access to light that is afforded next to hiking trails, parking lots, roadways and fields. Nevertheless, like all the park's biological resources, over the long term lichens face threats associated with the development of adjoining agricultural and urban land and increased recreational use. Incredibly, the park receives in the order of 1.7 million visitors annually and this is estimated to grow to 2 million by 2020 (Gatineau Park Master Plan 2005), which is bound to have ecological implications. A measure of the success of current conservation plans will be the continued health of the park's lichens. Come the end of the century, one wonders what will remain of the populations studied by Macoun in the late 1800s and Brodo in the late 1900s?

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Photos by Colin E. Freebury.

Why scientific names?

Colin E. Freebury

Some readers might question the use of scientific names including authorities in the preceding list of lichens of Gatineau Park. The reason is twofold. First, there is no agreement on vernacular names for lichens. Second, the list is a matter of record for future research and therefore must use unique, precise, and authorized names, which vernacular names are not.

Other conventions include the use of Latin abbreviations to qualify names. For example, "cf." (*confer*: compare) is used to indicate that the researcher is not certain of the determination, but believes that it compares well with the species named. Perhaps the only specimen available was in poor condition, for example, and certain characters could not be measured accurately.

Further examples from the list: "ined." (*ineditus*) = unpublished; "ex" = from, based on the work of; "s. lat." (*sensu lato*) = in the broad sense of; "auct." (*auctorum*) = of authors, indicating that the name is used in the sense of a number of authors and not as by the original author; "subsp." = a group somewhat less distinct than species usually are, but based on characters more important than those which characterise ordinary varieties; and "var." = a taxonomic rank below subspecies. Varieties diverge from the parent species or subspecies in a relatively minor way.

For additional information on botanical names:
http://en.wikipedia.org/wiki/Botanical_name.

The Larose Forest BioBlitz: 2006 - 2010

Christine Hanrahan

BioBlitz participants enjoying a well-deserved break outside the Larose Forestry Station, June 2010.

Introduction

A BioBlitz provides a "snapshot" of the species present in a particular area. It is conducted over a 24 hour period, during which participants do a rapid and intensive survey of the flora and fauna.

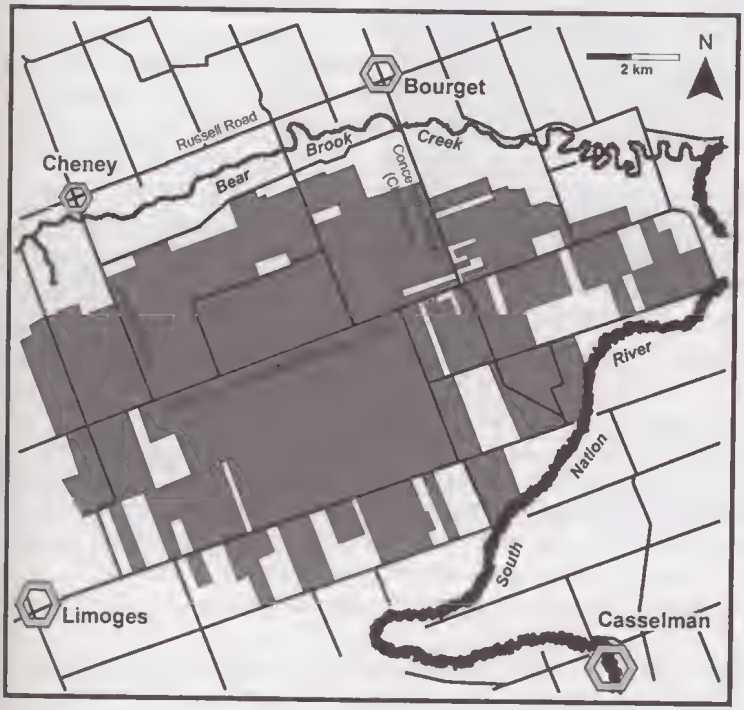
These events are a terrific way to get a quick overview of what is in an area, and can pinpoint sections that may warrant further exploration. Anyone looking for good baseline data in a particular area would find a BioBlitz invaluable. For participants,

it can offer the opportunity to explore new, or otherwise difficult to access, areas. Last, but certainly not least, these events are really fun to participate in.

My BioBlitz experience is confined to Larose Forest where we have found the three BioBlitz events held to date, provided many additions to the ongoing flora and fauna inventories, gave a better overview of the distribution of some regionally significant species within the forest, and highlighted areas that should be investigated more fully in the future. More BioBlitz events are planned for the forest over the next few years.

In the beginning . . .

In 2003, when the idea of holding a BioBlitz in the forest was first suggested to me, I thought it an excellent idea. With the few exceptions noted here, there was little information on the plants and wildlife of Larose Forest. Joyce and Allan Reddoch had carried out surveys of orchids in the Ottawa district for some decades, including Larose Forest, and participants in the second Ontario Breeding Bird Atlas were collecting data on breeding birds there. The first atlas included the forest, of course, but a separate list for the forest was not kept. A BioBlitz, therefore, seemed an ideal way to get good baseline data for the many taxonomic groups heretofore ignored. In the interim, between considering the idea and actually implementing the BioBlitz, Eleanor Thomson offered to provide a plant inventory of the forest, which added substantially



Map of Larose Forest.

to the modest list existing at that point. Preliminary lists also began to be compiled for reptiles and amphibians, butterflies, and moths. Around this time, I discovered that the Mycologues amateurs de Québec had been paying annual visits to Larose Forest since about 1984, and they contributed a terrific list of mushrooms and fungi to our recently established database.

On a different level, it seemed a BioBlitz was an excellent opportunity to introduce people to this large forest, only 40 minutes east of Ottawa, yet largely unknown.

Benefits to Larose Forest

All of the data gathered in the three BioBlitz events (and in any future such events) is provided to the United Counties of Prescott-Russell for use by the forest managers and others. By finding and noting (using GPS) any Species at Risk and provincially and regionally significant species, they can ensure that work in the forest will take these locations into consideration. They also have access to a large and growing database of the biodiversity of the forest.

The BioBlitz: Planning and logistics

Fired up with enthusiasm, I embarked on an information-gathering exercise and accumulated a substantial amount of material about the hows, whys and wherefores of holding a BioBlitz. Sifting through the collective wisdom, one thing soon became evident. Without the cooperation of an agency or organization willing to fund, or seek funds, for the event, it would be difficult, though not impossible, to get the thing off the ground. Everything I read suggested that the cooperating body should be one ensconced in the targeted area, not from outside. The Larose Forest, though within The Ottawa Field-Naturalists' Club's 50-km study circle, is in the United Counties of Prescott-Russell (UCPR). Therefore, I approached the Prescott-Russell Stewardship Council (PRSC). Under the leadership of Suzanne Lafrance, they were more than willing to come on board. Suzanne suggested that we invite representatives of several other local organizations to participate in planning the event. Our first meeting was held in Larose at the Forestry Station, with members of Boisés Est, UCPR, South Nation Conservation (SNC), the Vankleek Hill Nature Society, PRSC, and myself representing the OFNC. Also in attendance were several local residents with a keen interest in the forest. This set the tone for subsequent BioBlitz events in Larose Forest, and while the core group remained the same, people from other organizations and agencies came and went. Our most recent planning meetings (2009-2010) included folk from the Ontario Ministry of Natural Resources, in addition to representatives from most of the above organizations.

Research showed that there were various ways to conduct a BioBlitz within the basic framework of the 24 hour period. However, right from day one we decided to do things a bit differently from most other BioBlitz events. Rather than sending out a

notice inviting the public to participate, we approached specific individuals whom we knew to be experts in their field, and asked if they would consider taking part. We were very keen to gather as much data as possible to add to the existing inventories, and we knew that the people we invited were familiar with the process of field work and could be relied upon to work on their own quickly and efficiently. This worked well and over the course of the three BioBlitz events, we have not seen the need to change this approach.

Life was made much easier thanks to the considerable logistical help for each BioBlitz from the UCPR. Detailed maps tailored to our purposes were prepared by their GIS people; a variety of temporary but well-made signs were located strategically for defining boundaries, alerting motorists and ATV users to the BioBlitz, and indicating parking areas (Larose Forest staff erected the signs before the BioBlitz began). Participants were also given dashboard notices stating that they were part of the BioBlitz and allowed to drive and park in otherwise off-limit areas. We also had full use of the Forestry Station in Larose for the BioBlitz headquarters, which was a real blessing!

One of the BioBlitz signs, 2007.

Each BioBlitz covered a 24 hour period. In 2006 it ran from 2:00 p.m. to 2:00 p.m. Based on feedback, in subsequent years we held it from 12 noon to 12 noon. Also in 2006, we held the event on a Thursday and Friday, but changed to Friday and Saturday for the next two events.

In 2006 we held a "MiniBlitz" to focus on mushrooms and fall birds. This ran from 10:00 a.m. to 6:00 p.m. in the same area as the full BioBlitz. We invited seven mycologists and birders to take part, all of whom readily agreed. Although the event was very successful and added many new species to the already impressive

mushroom list, it was a lot of work to do a full BioBlitz and another day-long event a few months later, so we didn't continue with the MiniBlitz idea.

Participation in each BioBlitz was strong, with most of the invitees attending. Many folk took part in all three events, while others participated in only one or two of the three. We had 78 participants over the course of the three events.

BioBlitz Locations

The first BioBlitz in 2006 covered an area in the east end of the forest approximately 3.2 km by 3.2 km, close to the Forestry Station and east of, but including, Concession 7. Here, the habitat was primarily Red Pine plantation and Red Maple forest. There was a large wetland, a few very small streams, and several low-lying damp areas of birch, winterberry and alder. Roadsides contained a profusion of flowering plants which is where most of the butterflies were found.

The second BioBlitz in 2007, was south of the Clarence Cambridge Boundary Rd. and measured roughly 3.6 km by 3.6 km. Dominated by Red Maple forests and wetlands, with scattered Red pine plantations, the habitat was sufficiently varied and rich to yield some interesting discoveries.

The third BioBlitz, held in 2010, took place in a very different area. Located at some distance from the Forestry Station, the site was in the far southeast corner of the forest, an area that had received very little exploration, probably due to being away from the Clarence-Cambridge Boundary Rd. corridor. A significant difference in terms of habitat, was the South Nation River that formed one boundary of the site. Also unusual was a small forest patch with appreciable old-growth features, as well as a large bog-like area adjacent to that site. Small Red Pine plantations, and mixed forest made up the rest of the site. Despite a less varied habitat than the other sites, considerably more new species were added than at either of the previous locations.

Results

Larose Forest BioBlitz results

	2006	2007	2010
Total species found	882 (BioBlitz and MiniBlitz)	591	743
Species new to the existing lists	49	58	148
Species new to the Ottawa district	2	1	5

During the 2006 BioBlitz, inventories of spiders, insects (other than butterflies, moths and dragonflies), lichens, mosses and liverworts were compiled for the first time. These provided preliminary data on which future surveys could build. Each BioBlitz added to the existing inventories. At present, there are inventories for amphibians and reptiles, arachnids, birds, fish, insects, mammals, bryophytes, lichens, mushrooms and fungi, and vascular plants. These lists are available on the Larose Forest pages of the OFNC website: *www.ofnc.ca/conservation/larose/index.php.*

Regionally/provincially significant species

In each BioBlitz, we asked people to keep note of, and GPS the locations for, Species at Risk, and any Regionally or Provincially Significant species they might find (we provided species lists). A list of all the provincially and/or regionally significant species found over the three BioBlitz events, is given in Appendix 1.

Definitions of Regional and provincial significance

Provincial ranking and definition for flora and fauna follows the Ontario Natural Heritage Information Centre (NHIC) list which is updated on an ongoing basis:

S1 - Critically Imperiled in Ontario; usually 5 or fewer occurrences.
S2 - Imperiled in Ontario; usually between 6-20 occurrences.
S3 - Vulnerable in Ontario; 80 or fewer occurrences.

To determine regionally significant vascular plants, I used Dan Brunton's excellent 2005 plant list compiled for the City of Ottawa. It is the most recent flora for this part of Eastern Ontario. The boundaries for the City of Ottawa are adjacent to the Larose Forest, so while his list does not strictly cover the forest, I think it is safe to infer that the plants there have similar status. The definition of Regional significance follows Brunton: "*plants known from 10 or fewer contemporary populations (post-1969) in the City of Ottawa.*" Provincial ranking follows NHIC.

Status for dragonflies and damselflies follow Bracken and Lewis. For the first two BioBlitz events, the status given in their 1998 checklist was used; for the 2010 BioBlitz, I used the updated 2008 checklist. I also used the ranking provided by the NHIC.

Butterfly status was determined from the OFNC's 1996 Checklist of butterflies of the Ottawa District, Layberry's 2007 update, and the NHIC.

Status for all other insects is difficult to determine. Nevertheless, when cranefly specialist, Fenja Brodo, noted that a species was new to the region, I took that to also connote regional significance (or rarity).

For lichens, mosses and liverworts, and mushrooms and fungi, I relied on NHIC data, which is not by any means (yet) exhaustive, and in a few cases, comments by the experts who surveyed these groups during the BioBlitz events.

Several bird species have been recently listed as federally threatened by the Committee on the Status of Wildlife in Canada (COSEWIC), and by the province as a species of Special Concern. Several of these species were found pre-2010, but were not so listed at the time of earlier BioBlitz events. Local rarity (significance) is based on the 1993 Birder's Checklist of Ottawa.

No reptile or amphibian species of special significance were found.

The status of a few species considered significant or rare in 2006 and 2007, was changed when updates of checklists or other reports were released post-2006. Thus the number of some species listed as regionally signficant in 2006 or 2007, were not so listed in subsequent years.

BioBlitz reports

After each BioBlitz, I wrote a detailed report, which was then translated into French. All of these reports are available on the websites of the Prescott-Russell Stewardship Council, and the OFNC (*www.ofnc.ca/conservation/larose/*).

What next?

There is still a lot of forest left to cover. The main block, where the BioBlitz events occur, covers approximately 18,000 acres. We've only looked at a small fraction. The next such blitz will likely take place in 2012. We have been considering new ways of doing things and will begin discussions on the topic in the fall of 2011. Stay tuned!

Acknowledgments: Grateful thanks to the 78 participants in the three Larose Forest BioBlitzes, without whom there wouldn't be anything to write about. Special thanks to Suzanne Lafrance and the Prescott-Russell Stewardship Council, the United Counties of Prescott-Russell, and to all the other agencies and volunteers who helped with the planning. Thank you as well to the volunteers who opened the Forestry Station during each BioBlitz, at the early hour of 5:30 a.m., brought donuts, made coffee, staffed the centre and provided information to BioBlitz participants.

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Appendix 1.
Regionally and/or provincially significant species

Species	Status	Year(s) Found
Vascular Plants		
Aster borealis Rush Aster	RS	2006, 2010
Betula pumila Dwarf Birch	RS	2010
Carex chordorrhiza Cord Sedge	RS	2010
Carex crawfordii Crawford's Sedge	RS	2006
Carex debilis Weak Sedge	RS	2006, 2007, 2010
Carex echinata Star Sedge	RS	2007
Carex folliculata Long Sedge	RS, S3	2010
Carex gynandra Nodding Sedge	RS	2010
Carex novae-angliae New England Sedge	RS	2007

Species	Status	Year(s) Found
Chrysosplenium americanum Golden saxifrage	RS	2007
Cirsium muticum Swamp Thistle	RS	2006, 2007
Eragrostis frankii Frank's Love Grass	RS	2006
Galium boreale Northern Bedstraw	RS	2006
Glyceria canadensis Rattlesnake Grass	RS	2007
Glyceria septentrionalis Southern Manna Grass	RS	2007, 2010
Hierochloë odorata Sweet Grass	RS	2007, 2010
Kalmia polifolia Bog Laurel	RS	2007
Lonicera villosa Northern Fly Honeysuckle	RS	2010
Lycopodiella inundata Bog Clubmoss	RS	2007
Lycopodium complanatum Northern Ground Cedar	RS	2006, 2010
Nemopanthus mucronatus Mountain Holly	RS	2006, 2007
Panax trifolius Dwarf Ginseng	RS	2007
Poa alsodes Woodland Meadow Grass	RS	2006
Salix pyrifolia Balsam Willow	RS	2007
Scirpus acutus Great Bulrush	RS	2006

Species	Status	Year(s) Found
Scrophularia lanceolata Figwort	RS	2010
Stellaria longifolia Long-leaved Stitchwort	RS	2006, 2007
Streptopus amplexifolius Twisted Stalk	RS	2007
Torreyochloa pallida var. *fernaldii* Fernald's Manna Grass	RS	2010
Uvularia sessilifolia Wild Oats	RS	2007
Viola lanceolata Lance-leaved Violet	RS	2007
Viola selkirkii Great-spurred Violet	RS	2006
Mosses and Liverworts		
Blasia pusilla Liverwort	S3S4	2006
Brachythecium albicans Moss	S1	2007
Campylium radicale Moss	S3	2006
Jungermannia gracillima Liverwort	S3?	2006
Orthotrichum ohioense Moss	S3	2006, 2010
Ulota coarctata? (Capsules immature) Moss	S3	2010
Sphagnum quinquefarium Sphagnum moss	S3	2006

Species	Status	Year(s) Found
Lichens		
Bryoria furcellata Burred Horsehair Lichen	S3S4	2006
Fungi and Mushrooms		
Trichopilus violaceus Violet entoloma	Regionally rare (new to district)	2006
Insects		
Amblyscirtes hegon Pepper and Salt Skipper	Regionally Rare, S3?	2007
Arigomphus cornutus Horned Clubtail	S3	2007
Cordulegaster obliqua Arrowhead Spiketail	R,L; S2	2010
Eutonia alleni Small-palped Crane Fly	Rare (new to district)	2006
Gomphus fraternus Midland Clubtail	S, L	2007, 2010
Gonomyia currani Small-palped Cranefly	Rare (new to district)	2010
Gonomyia (Idiocerodes) kansensis Small-palped Cranefly	Rare (new to district; probably presents a significant range extension north)	2010
Illisia graphica Small-palped Cranefly	Rare (new to district)	2010
Limonia indigena Small-palped Cranefly	Rare (new to district)	2010
Tipula (Yamatotipula) jacobus Long-palped Cranefly	Rare (new to district)	2010

Species	Status	Year(s) Found
Birds		
Canada Warbler	Threatened (Federal), Special Concern (Provincial)	2006, 2007, 2010
Common Nighthawk	Special Concern (Provincial)	2010
Connecticut Warbler	Rare (casual visitor to area)	2006
Red-shouldered Hawk	Provincially sensitive (de-listed post 2006)	2006
Rusty Blackbird	Special Concern (Federal)	2006
Whip-poor-will	Threatened (Federal), Special Concern (Provincial)	2006, 2007, 2010

What does Ted Mosquin have to do with Purdon Fen?

Paul M. Catling and Brenda Kostiuk[1]

Ted Mosquin, the guardian of Purdon Fen, at the entrance to the "Mosquin Trail" named in his honour. Ted has contributed more than anyone else to the protection of one of the largest colonies of Queen Lady's-Slipper and to the development of Purdon Conservation Area. Photo by P.M. Catling, October 2010.

[1]170 Sanford Ave., Ottawa, Ontario K2C 0E9, *catlingp@age.gc.ca*

Fens are calcium-rich and nutrient-poor wetlands where groundwater runs over the surface. They are often characterized by rare and unusual plants and animals. For more information on fens see Reddoch in *Trail & Landscape* (1979, 1984) and elsewhere (1983). Fens were once much more common and widespread in the Ottawa Valley, but with changes to water flow due to agriculture, roads and urban development, loss of groundwater and invasion of alien Glossy Buckthorn and European Common Reed, they have seriously declined and are best considered as an endangered habitat. Over a few decades we have seen many fens turn into marshes or wet thickets. Many eastern Ontario fens were lost to drainage for agriculture, including large fens that once surrounded parts of Alfred Bog.

Purdon Fen in Lanark, protected and managed by the Mississippi Valley Conservation Authority (MVC), is a good example of a small southern Ontario fen. In fact, this is the one to see! The area has outstanding short trails with very good interpretive signs. The name comes from Joe Purdon (photograph in White 1988, p. 48) who owned the land and protected it up until 1984, when, with the help of the

At Purdon Conservation Area, a well-planned and specially constructed boardwalk brings visitors within a few centimetres of the orchids and there are thousands to be seen. Through a donation, a visitor or group can contribute to the "Adopt an Orchid Program" and have their name on the orchid tree. The program helps to fund management of this remarkable site. Photo by T. Mosquin in 1990s.

Nature Conservancy of Canada and the Ontario Heritage Foundation, it was acquired by MVC "with a pledge for preservation for the enjoyment and enrichment of future generations." Purdon discovered rare orchids with flowers the size of a soup spoon on his property and he nurtured them for 50 years by cutting trees to allow more light and cutting back competing vegetation.

The fen has the characteristic cedar forests, larch, open wet mats of sedges, and significant species (Mosquin 1986a, b; White 1988), but the special feature of this fen is Purdon's legacy of large numbers of Queen Lady's-Slipper Orchid (*Cypripedium reginae*). Ted Mosquin carried out an ecological study of the Fen in 1985 (Mosquin 1986) and conducted a complete census of the entire population. He reported that the fen was then the home to a very large population of 16,000 stems. This is likely the largest population in North America. It is one of the most impressive wild-flower displays in Ontario with optimum flowering taking place on the third week of June.

Throughout southern Ontario, colonies of Queen Lady's-Slipper Orchids as well as other Lady's-Slippers, have been ravaged by poachers for sale at plant nurseries or for futile transplanting to private gardens. Ted is recognized as the guardian who continues the pioneer work of Joe Purdon. He knew that many flowers would not be pollinated because they only deceive insects, so he began hand pollinations to increase the numbers of seeds. A professional biologist, he

The spectacular flower of the Queen Lady's-Slipper is up to 8 cm across, mostly white with rose-red around the opening of the lip. Photo by P.M. Catling, Minesing Swamp, Simcoe Co., Ont., 1975.

prepared a long-term management plan for the site and then served for a few decades as an interpreter and advisor, as well as participating in fundraising efforts to pay for interpretive signage and to develop the area for public uses. In recognition of his tireless efforts and devotion to the Purdon Conservation Area and his key role in its ongoing development, the "Ted Mosquin Highland Trail" was named in his honour. As well, in 2007, on the recommendation of the MVC, Ted received the Conservation Pioneer Award from the Latornell Conservation Foundation for his work that is now leading to the long term protection of the remarkable orchid colony. He not only worked on the land as the guardian of Purdon Fen and its several thousand Queen Lady's-Slippers, he also served at the highest levels of policy development in Canada (for example as senior author of Canada's catalogue of biodiversity (Mosquin et al. 1995) and as a board member of many of Canada's national conservation organizations).

The challenges of protection are being addressed by MVC with the continuing help and advice of Ted. The organization is in a good position to assure appropriate water levels, but a newer problem is the large deer population that has developed in Lanark. In 2007 there was more than a 22 % loss of orchid stems (probably closer to 50%) and most of this was likely due to deer grazing (Mosquin 2008). The effective management of this site will not be easy, but the MVC has taken many of the right steps, despite a 33 % decline in the number of plants since 1984 (Mosquin and Brown 2006). The catastrophic decline became evident through volunteer monitoring efforts of Marilyn Light (Light 2005). It may be a result of natural fluctuation, and/or of deer grazing, and/or other factors. Sometimes periods of dormancy that are not well understood will reduce the number of flowers in a particular census year when the number of plants has not actually declined. Regardless of the extent of decline, MVC has basically kept the promise of protection with a very significant contribution to education and enjoyment. There are thousands of visitors each year.

It is now 24 years since the Conservation Area was opened in 1986. The future will be a challenge and it will involve knowledge and understanding that we have not had before, but based on the recent record of effort, common sense, and perhaps some luck in terms of help from a few key people, like Ted, we can call Purdon "a great success with reasonable prospects." It should serve as an inspiration to naturalists and conservationists.

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How to manage Queen Lady's-Slipper Orchids

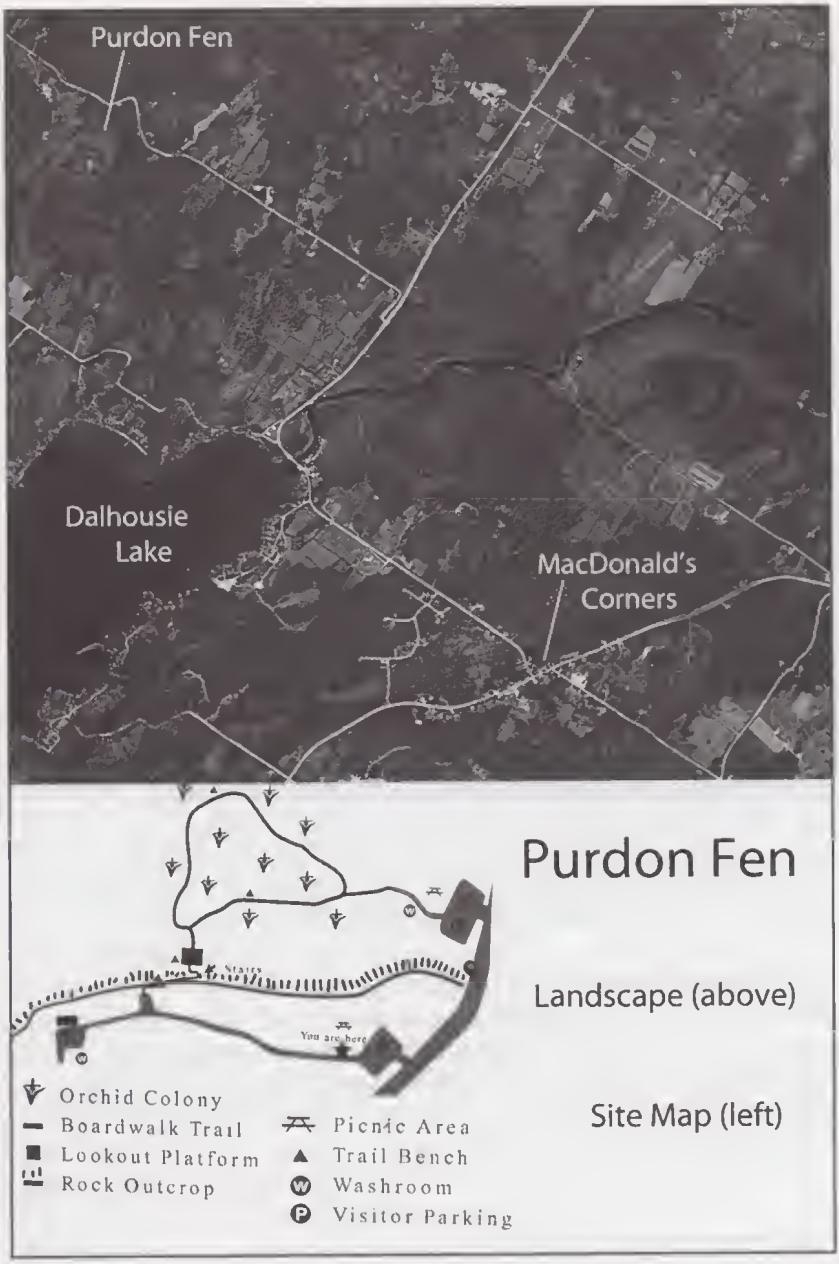
The "new" management plan for the Queen Lady's-Slipper Orchids (Mosquin and Brown 2006) at Purdon Conservation Area (PCA) has three recommendations aimed at orchids: (1) Maintain the present mid-successional and semi-open conditions in the fen woodland; (2) Maintain particular water levels in the lake adjacent to the fen by controlling beaver activity and through lake level adjustment; and (3) Hand-pollination of orchid flowers. We would suggest adding: (4) a plan for regular monitoring of orchids to determine the success of management practices; (5) deer exclusion areas to help evaluate the effect of deer (see main text) and a comprehensive deer management plan; and (6) patrols and a monitoring plan for people to provide a basis for limiting abuses such as removal of plants, smoking on the boardwalk, unleashed pets, etc.

Oh Deer

This is probably not an unfamiliar pun if you live in Lanark County where the population of White-tailed Deer has exploded. In 2003 it is said that there were 18,000 deer in Lanark (2979.13 km^2) and it is well known that they were doing substantial damage to crops in herds of 30-40 animals. Although steps have been taken to reduce the deer population, there are still local problems. At PCA, there are probably more deer in the last decade than there ever have been in the past. Deer not only grazed 50% of the orchid stems in 2007, but in the winter and early spring they use the fen as a yard. This leads to excessive trampling, creation of bedding areas and nutrient addition (Mosquin 2008). Next to extreme shading by canopy closure of the overhead forest, deer are now perceived as the biggest threat to the orchid populations, and this is likely true but continuing study is required. There are numerous ways of controlling deer ranging from regular patrols to attraction of coyotes, to various repellants, noise makers, scarecrows, and electric fences (to name only some). One US population of Queen Lady's-Slipper Orchids is surrounded by a high chain link fence forming a deer exclosure (Kerry & Gregg 2004).

Natural or Unnatural?

So we are going to manage deer and beaver to protect orchids, but are not these animals themselves part of the natural scene? There are two important points. Firstly, of course they are natural but we have messed up the balance by taking the predators away. They exist in an unnatural context, without their natural predators, they are out of control and causing stress on other elements of the ecosystem. Secondly there was a time when habitats were being created and destroyed all over the landscape. Plants moved from one place to another. Now there are fewer or not enough places to go as old habitat is lost. As a result of changes on the landscape, new habitats are not being created at the same rate as in the past. This means that habitats that were once short-lived, now have to survive longer if certain species requiring those habitats are to survive. Putting it simply, without management we will lose much of our biodiversity. The future of the biggest population of Queen Lady's-Slipper Orchids in Canada reminds us of that.



Purdon Fen (44.9927, -76.5467) on the landscape and a map of the boardwalk area. MacDonald's Corners is on the the MacDonald's Corners Road NW of Perth. From there go NW on Watson's Road (County 8) to Dalhousie Lake, the NE, then NW on Concession Road 8 (Umpherson's Road) 2.1 km to Purdon Fen Conservation Area. The conservation area is 5.2 km from MacDonald's Corners, 20.5 km from the village of Lanark and 53 km NW of Smiths Falls.

Simplicity

Robert W. Nero

Cold, windy March morning
so with some relief
the dog and I ventured
into sheltering woods
down a slope and into deep, soft snow
awkwardly negotiating a too-narrow
deer trail.
The dog freely roamed far ahead
as I floundered and stooped
beneath low branches
just as any deer would do
and then I stopped, entranced:
a single vertical strand, a
two-inch long deer hair suspended
from the tip of a dead twig . . .
a sight to remember.

This is taken from Robert Nero's latest collection of poems *Out with the Dog, Poems for Dog-Lovers.*

Book Review: Grey Owl *and* Me: Stories from the Trail and Beyond

Luke Périard

Grey Owl and Me: Stories from the Trail and Beyond is written by Hap Wilson. Illustrations are by Hap Wilson and Ingrid Zschogner. Resembling his previous book: *Trails and Tribulations: Confessions of a Wilderness Pathfinder*, this book is a very interesting read. He recounts personal and exciting tales of adventure, hardship, history and picturesque descriptions of the North American, and New Zealand, outdoors.

The book opens up with a short biography about Grey Owl, who was an environmentalist and promoted conservation through his articles, books, lectures and films in the 1930s. This book isn't really about Grey Owl though, it's about Hap Wilson's adventures, with some comparisons and contrasts to Grey Owl's own life stories. In the book, Grey Owl occasionally shows up as Hap Wilson's "conscience," or like a spirit guide, and they have short conversations and debates. Probably Wilson's way of trying to show what kind of character Grey Owl may have had and to promote some of Grey Owl's own beliefs and what he stood for.

The book contains 19 chapters of non-fiction stories from Hap Wilson's expeditions. Each chapter is about 12 to 14 pages long, and includes illustrations. He describes stories of dog sledding voyages, frustrating camping trips, dangerous storms and hiking trails, but these are just a few of his many tales. He gives excellent and useful advice for outfitting, trail hiking, canoeing, winter and summer camping. Most of his stories take place in Temagami: a region and a municipality in northeastern Ontario, Canada, and one of his favourite places. These stories are very entertaining, and some are even shocking! Especially chapter 16, describing dangerous and wild storms. It can really be a warning about making sure you know what to do when you are on a camping trip, in the middle of nowhere, and a storm is about to hit. His stories are also fun to read because by reading about some of his outdoor trips gone wrong and mistakes made on the trail, it can help you to prepare yourself for your next trip outdoors. His stories make you aware that going out on the trail, camping in the woods, cross-country skiing or even driving out over frozen lakes, can be beautiful . . . and treacherous.

Hap Wilson uses very descriptive words and paints picturesque descriptions of the

North American wilderness. There is also a chapter on his trip to New Zealand, where he also describes the flora and fauna that inhabit there. His book is full of good quotes and great advice. One of these quotes is: "nature is full of inconsistencies." Hap Wilson also inserts significant quotes from Grey Owl's own books in almost every chapter.

If you were entertained reading Hap's previous book, *Trails and Tribulations*, you will enjoy *Grey Owl and Me*. The stories are similar and his messages to us are repeated. Since the book has a naturalist theme, Hap Wilson recounts stories, and gives his opinion, of how industry and people's thoughtlessness are slowly reducing our expanse of untouched and pristine wilderness.

The book is divided into three parts: the first consisting of various tales and stories, the second consisting of descriptions of beautiful landscapes that Hap Wilson experienced first hand and, finally, more stories about our White Pine forests, water, mobility on the trail, ice walking and storms. I was never bored reading this book, because his recounted stories are exciting and interesting. The book isn't a biography or an encyclopedia about the North American wilderness, and it also helps to have illustrations every several pages to look at and to help you to visualize what the author is describing. For the movie-buff, included in his book is a chapter on Wilson's work on the set of "Grey Owl" the movie, which starred Pierce Brosnan.

There are several paragraphs in each chapter, that move you to envision and appreciate the beauty and peace of being in the quiet solitude of the back country. An example of this (page 135) is in one of his quotes where he writes:

> *"Each late afternoon I would fire up the stove, enough to radiate a friendly glow in the perimeter area and when the trappers arrived they would camp beside the stove, and I would join them in the evening with a bottle of Michel's skunky stout, and we would share stories, songs, and revelations about the beauty of the New Zealand mountains."*

The book is in a 9 x 6", *Octavo*, format, consists of 240 pages and sells for $26.99 Cdn. There is some, but very little, coarse language. It is published by Natural Heritage books.

Meeting of the Field Botanists of Ontario

The Field Botanists of Ontario and the Canadian Museum of Nature invite you to celebrate the arrival of Spring in Ottawa. This three day event includes a tour of the Canadian Museum of Nature Natural Heritage Building in Gatineau-Aylmer sector (Saturday only), a series of talks, field trips and a workshop.

Talks (9 April):

Tiger nuts and velcro plants: A walk through the relationships, biogeography and remarkable diversity of sedges (family Cyperaceae) by Julian Starr.

Orchids: leaving "nothing but footprints" can leave significant impact: Long Term Study of Two Common Orchids by Marilyn Light.

Science and Traditional Knowledge: Detection of vegetation changes in southern Hudson Bay by Laurie Consaul.

Hold onto your hats! Botany is going digital to change the world: Being a Botanist in the 21st Century by James Macklin.

Keynote Presentation (9 April):

Botany in arctic Canada: The latest chapter in a 200 year adventure: Floristic Discoveries and Biodiversity of the Western Canadian Arctic Vascular Plant Flora by Jeffery M. Saarela.

Field Trips (10 April):

Heart of the National Capital: The Greenbelt lead by Dan Brunton (limited to 20).
Wonderful Winter Wildflowers lead by Eleanor Thomson.
Lichens of Gatineau Park lead by Colin Freebury (limited to 12).

Workshop (10-11 April)

Bryologists Wanted! lead by Jennifer Doubt and Linda Ley (limited to 12).

Costs:
All day Saturday (tour, talks, banquet and keynote presentation): $50.00
Saturday evening (banquet and keynote presentation): $40.00
Saturday day only (tour and talks): $20.00
Field trips (subject to availability): $15
Workshop (subject to availability): $20

Information and Registration: (905-885-2123)

National Capital Region Wildlife Festival Events

Sunday, April 10 and ongoing
Arboretum, Experimental Farm, Prince of Wales Drive
Find the GPS coordinates on our website, *www.wildlifefestival.org,* and Geo-Search for ten interesting sites while sharpening your senses to sights and sounds along the way. Your reward is finding the sites! **Information**: 613-831-2253.

Tuesday, April 12, 6-9:30 p.m.
Canadian Museum of Nature, Metcalfe and McLeod Streets
Celebrate National Wildlife Week in this region and the International Year of Forests with a Forum on Forests. Join us for a thought-provoking evening as we look into the threats to our forests and the tools for protection, and the various ways to conserve our forests from national, regional and local perspectives. Information tables, displays, handouts and refreshments. **Information**: 613-831-2253 or *www.ncrwildlifefestival.org.*

Friday, April 15, 6 p.m. to dark
Stony Swamp Parking Lot for Beaver Trail, Moodie Drive, south of Hunt Club
Family Nature Walk at Stony Swamp with Martha Webber, botanist, naturalist and educator, who will encourage participants to discover the wonders of the night sounds and sights of nature in spring. **Information and Registration**: 613-839-5217.

Friday, April 15 (French) and Friday, April 22 (English), 7-10 p.m.
Gatineau Park Visitors Centre, 33 Scott Road, Chelsea
Spring is in the air and frog songs are filling the night! Join the Friends of Gatineau Park for their popular evening program, Frog Chorus. Rob Alvo, an amphibian specialist will introduce you to amphibians of Gatineau Park and their different calls during an indoor presentation. Afterwards, we will go into the Park, enjoy the concert first hand and identify who is who! All participants will receive a free CD with frog calls from the Frogwatch Program! Adults $15 (Members $12), Seniors/Students $12 (Members $10), Children $5. **Information and Registration**: 819-827-2020 or *http://www.friendsofgatineaupark.ca.*

Saturday, April 16, 10 a.m. to Noon
Cliffland Clifford Family Protected Wilderness, 502 Hills of Peace, Lanark
Enjoy 5 km of relatively easy to moderate hiking on the Earth Day Walk to Blueberry Mountain, one of the seven wonders of Lanark County. This guided walk will include a dramatization of the life of John Muir and participants will be rewarded with a very scenic outlook from the top of the mountain.
Information and Registration: 613-259-3412.

Tuesday and Wednesday, April 19 and 20
Wild Bird Care Centre, 734 Moodic Drive, Park in Stony Swamp Parking Lot for Beaver Trail
Birds: A Walk and Talk from 1 to 3 p.m. Get acquainted with the rehabilitation centre staff and their bird guests and take a walk along the Beaver Trail. Donations appreciated. Registration required. **Information and Registration**: 613-828-2849.

Saturday, April 23, 1:30 to 4 p.m.
RIM Parking Lot, Innovation Drive, Klondike and Second Line
Learn about the culinary wonders of the wild with botanist and naturalist Martha Webber by joining her Edible Wild Walk in the Kanata Woods.
Information and Registration: 613-839-5217.

Tuesday, April 26, 1:30 to 2:30 p.m.
Dinosaur Nature Centre, 333-515 St. Laurent Boulevard
The National Capital Region Wildlife Festival and St-Laurent Academy Centre will host a Talk and Walk at the Macoun Marsh which is located on the grounds of Beechwood Cemetery in Ottawa. It is a small wetland in the southeast corner filled with many species of life; 1307 have been documented so far. Students of St-Laurent Academy will provide a tour of the site which is rich in aquatic species such as blue-spotted salamanders, painted turtles and birds. Weather dependent. Registration required. **Information**: 613-564-3466 or *www.st-laurentacademy.com.*

Saturday, April 30, 8 a.m.
Entrance to the Britannia Filtration Plant on Cassels Street
Dave Moore and Bev McBride of the Ottawa Field-Naturalists' Club lead a General Interest Nature Walk through the Britannia Conservation Area. Limited to 15 participants. **Information and Registration**: 613-729-9330 or *redstart@vif.com*.

Saturday, April 30, 10 a.m. to 2 p.m.
Klondike and Second Line Roads (Park on Second Line Road)
Families in Nature Walk on the Heron Pond Trail in the Kanata Woods with Martha Webber, naturalist and educator, who will encourage participants to discover the wonders of the sights of nature in spring. Bring a bag lunch.
Information and Registration: 613-839-5217.

Sunday, May 1, 2 p.m.
McCarthy Woods, Riverside Park/Hunt Club
Nature Walk in the McCarthy Woods with Lynn Kaplansky through a small but diverse urban forest with huge hardwoods, carpets of spring flowers and many signs of wild inhabitants. Easy trails but some may be muddy. Meet in mall parking lot at McCarthy Rd. and Paul Anka Dr. **Information and Registration**: 613-731-6141.

Coming Events

arranged by the Excursions & Lectures Committee.
For further information,
call the Club number (613-722-3050).

Times stated for excursions are departure times. Please arrive earlier; leaders start promptly. If you need a ride, don't hesitate to ask the leader. Restricted trips will be open to non-members only after the indicated deadlines.

ALL OUTINGS: *Please bring a lunch on full-day trips and dress according to the weather forecast and activity. Binoculars and/or spotting scopes are essential on all birding trips. Unless otherwise stated, transportation will be by car pool.*

REGISTERED BUS TRIPS: *Make your reservation for Club bus excursions by sending a cheque or money order (Payable to The Ottawa Field-Naturalists' Club) to Box 35069, Westgate P.O., Ottawa, Ontario, K1Z 1A2, at least ten days in advance. Include your name, address, telephone number and the name of the outing. Your cooperation is appreciated by the Committee so that we do not have to wait until the last moment to decide whether a trip should be cancelled due to low registration. In order for the Club to offer a bus trip, we need just over 33 people to register. If fewer than 30 register, we have the option of cancelling the trip or increasing the cost. Such decisions must be done a week in advance, so we encourage anyone who is interested in any bus trip to register as early as possible. We also wish to discourage postponing the actual payment of bus fees until the day of the event.*

EVENTS AT THE CANADIAN MUSEUM OF NATURE: *The Club is grateful to the Museum for their cooperation, and thanks the Museum for the use of these excellent facilities. Monthly meetings are held* in **the theatre in the basement**. Attendees may have to pay $5 parking per vehicle.

BIRD STATUS LINE: *Phone 613-860-9000 to learn of recent sightings or birding potential in the Ottawa area. To report recent sightings use the 613-860-9000 number and stay on the line. This service is run on behalf of the Birds Committee and is available to members and non-members.*

	MEETING OF THE FIELD BOTANISTS OF ONTARIO
Saturday 9 April to Monday 11 April	**Location:** Canadian Museum of Nature, Ottawa and Gatineau facilities. This meeting includes talks, local field trips, and an optional moss identification workshop on Sunday afternoon and Monday. The Field Botanists of Ontario has opened these events to members of all local field naturalists' clubs. See page 91 for more details.

Tuesday 12 April 7:00 p.m. Social & Club Business	**OFNC MONTHLY MEETING**
7:30 p.m. Formal Program	**MONITORING THE IMPACTS OF GLOBAL CHANGES ON THE DISTRIBUTION OF CANADIAN BUTTERFLY SPECIES: FIELDWORK, COMPUTERS AND THE PROSPECT OF CITIZEN SCIENCE** **Speaker:** Maxim Larrivée **Location:** Canadian Museum of Nature (VMMB), Metcalfe and McLeod Streets, Theatre, Basement. Global changes, particularly climate change and land use conversion, threaten Canada's biodiversity. The latest research indicates that climate and land use changes have caused widespread and ongoing shifts in the distribution of Canadian butterflies. Accurate predictions of global change impacts are critical to successful future species and habitat conservation. Our goal is to test if species distributions of a large number of Canadian butterflies are responding to changing land uses and climatic conditions. We also aim to test and calibrate broad-scale models of butterfly species' ranges to predict future impacts of climate and land use change. To do so, we have undertaken to survey extensively the butterflies across Canada. Our surveys focus on regions of Canada where butterfly richness increased or diminished the most over the 20th century, and/or where land use changes are most intense. Due to the magnitude of the task required to monitor butterfly distributions across the country, we are also building a web based citizen science project where observers will be able to share their records with us on a volunteer basis. Our objectives are ambitious, but they must be scaled to the same measure of magnitude as the potential impacts of global change on the environment. **Attendees may have to pay $5 parking per vehicle.**

Saturday	**OFNC SOIRÉE**
16 April	***Kid Friendly***
7:30 p.m.	**Location**: St. Basil's Church
to	Enter from Maitland Avenue (east side) just north of the
10:00 p.m.	Queensway. BUS ACCESS: Bus # 85 (along Carling Avenue) get off at Maitland Avenue and walk south on Maitland towards the Queensway for 0.5 km (~ 7-minute walk).
	Join us for some fun at our annual wine and cheese party and celebrate with the honoured winners of our Annual Awards. Photographers and artists may exhibit pictures for everyone to enjoy. Kids bring your natural history displays and play our new Natural History Trivia Quiz.
	Admission is $10 per adult or $8 if bringing a desert. Children are free.

Sunday	**RIDEAU CANAL FISH WATCHING**
17 April	***Kid Friendly***
3:00 p.m.	**Leaders**: Hume Douglas and Dr. Steven Cooke or others from
to	Carleton University's Fish Ecology and Conservation Physiology
about	Lab.
5:00 p.m.	**Meet**: Parking lot of Sunnyside Branch of the Ottawa Public Library, 1049 Bank St.
	In April many kinds of fish leave Dow's Lake for the warmer water of the mostly drained canal. Join us for this special chance to watch fish as many begin their courtship and spawning periods. If the weather is warm we can expect to see Yellow Perch, Pumpkinseed, Bluegill, Largemouth Bass, White Sucker, Common Carp, and possibly also Black Crappie, Muskellunge and others. Macnamara Field Naturalists' Club members are also invited to this event. Bring polarized sunglasses if you have them. Please call the Club number (613-722-3050) to register. More information about Dr. Cooke's research can be found at: *http://www.carleton.ca/fecpl/.*

Car pooling on excursions is very much encouraged and that is why we usually try to meet at a convenient bus stop with a good place to leave a car unattended for a few hours. Please chip in for gas.

Saturday
30 April
8:00 a.m.

SPRING IN CONSTANCE BAY
Kid Friendly
Leader: Jeff and Angela Skevington (613-832-1970)
Meet: 146 Monty Drive, Constance Bay. To get to Constance Bay, take the 417 to the March Road exit in Kanata. Take March Road several km to Dunrobin Road. Follow Dunrobin road past Dunrobin and Woodlawn to Constance Bay Drive. Follow Constance Bay Drive then take the second right onto Monty. 146 Monty is on your right after about 500 m.
This is a full day outing, but you are welcome to come for only the morning if you wish. Bring a lunch and expect to be home by about 4:00 pm. Constance Bay is a lot of fun in late April. Early warblers (Pine and Yellow-rumped for example), Common Loon, Red-shouldered Hawk, Virginia Rail, Eastern Phoebe, Hermit Thrush, and lots of sparrows including Fox, Chipping and White-throated should all be back. If we get a sunny day it should be fun for insect watching too. Late April is a great time to see early butterflies and a variety of insects that can't be seen the rest of the year. Some of the pussy willows will be loaded with pollinating insects if the day is warm enough. Early season frogs, salamanders and some wildflowers are also possible depending on how advanced the season is.

Saturday
7 May
7:00 a.m.
to
about
11:00 a.m.

BANDING DEMONSTRATION AND BIRDING AT THE INNIS POINT BIRD OBSERVATORY (IPBO)
Leader: Jeff Skevington (Holly Bickerton at Lincoln Fields)
Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot near Pizza Pizza, Richmond Road at Assaly Road.
For over 25 years, the Innis Point Bird Observatory has been operating along the Ottawa River just north of Shirleys Bay on the Connaught Rifle Range property. This visit to the IPBO takes place during the annual Spring Migration Monitoring Program and we will have an opportunity to observe the banding operations, including a demonstration of mist netting and banding techniques. We will also have an opportunity to bird some of the diverse habitats on the property, from the Ottawa River to shrub alvar, swamps, coniferous and mixed forest and old fields. Due to space limitations related to parking and access to the mist nets and banding station, attendance is limited to 15 participants. Please call the Club number (613-722-3050) to register.

Sunday	**BIRDING THURSO TO PLAISANCE, QUEBEC**
8 May	**Leader**: Mark Gawn
8:00 a.m.	**Meet**: Thurso ferry dock at 8:00 a.m.
to	The extensive marshes which line the Ottawa River at Thurso offer
12 noon	some of the best birding in the Ottawa District. We will start out at the managed wetland at Thurso, then head east to Plaisance. Depending on the conditions there may be thousands of geese and other waterfowl present, along with a good selection of early migrants. Bring waterproof footwear, a snack, and insect repellent. A small fee may be charged to enter the reserve.

Tuesday	**OFNC MONTHLY MEETING**
10 May	**THE RISE OF NORTH AMERICAN GEESE**
7:00 p.m.	**Speaker**: Jack Hughes
Social &	**Location**: Canadian Museum of Nature (VMMB), Metcalfe and
Club	McLeod Streets, Theatre, Basement.
Business	Geese populations have increased dramatically in recent decades. This phenomenon has been a long range study by our speaker.
7:30 p.m.	Come and find out why the geese are so successful.
Formal	
Program	**Attendees may have to pay $5 parking per vehicle.**

Saturday	**SPRING MIGRANTS AT BRITANNIA**
14 May	**Leader**: Ken Allison and Dave Moore
7:30 a.m.	**Meet**: Entrance to the filtration plant on Cassels Road at Britannia. We will start at Britannia, but depending on the weather and birds, we might visit other areas in the west end of Ottawa. This will be a half day outing that will go ahead rain or shine, so dress for the weather and don't forget the insect repellent.

Car pooling on excursions is very much encouraged and that is why we usually try to meet at a convenient bus stop with a good place to leave a car unattended for a few hours. Please chip in for gas.

Sunday
15 May
Time TBA

BIRDING AT CHAFFEY'S LOCK

Leader: Patrick Blake (613-521-9048; *pjblake22@hotmail.com*)

Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot near Pizza Pizza, Richmond Road at Assaly Road.

Time: TBA

Come out for a morning of birding at Chaffey's Lock. The area surrounding Lake Opinicon represents the northern-most range of many species of birds that just barely make it to the Ottawa Circle. We'll begin the morning at the Skycroft Campgrounds on the shores of Lake Opinicon, where we will have ample opportunity to hear the song of the Cerulean Warbler; with a little bit of neck strain, we may be able to see one as well. Yellow-throated Vireo, Yellow-billed Cuckoo, and Blue-gray Gnatcatcher can also be found in this area. Other species more common in the Ottawa Circle, such as Indigo Bunting, Rose-breasted Grosbeak, and Scarlet Tanager, are plentiful here and should provide excellent viewing.

We'll finish the morning further down Opinicon Road, where we will find a study area for Tree Swallows, operated by Queen's University. Here we will hopefully find the rare Golden-winged Warbler. A nearby trail may offer Red-shouldered Hawk, Broad-winged Hawk, and Black-billed Cuckoo.

Dress should be appropriate to weather conditions on the day. As this outing will involve a lot of walking, both on paved roads and woodland trails, sturdy comfortable shoes are a must. Be sure to bring water and a snack; outhouse facilities are available at the Skycroft Campground. Hats, sunblock, bug spray, binoculars, and field guides are recommended. Only rain will cancel this event. Attendance is limited to 15 people—sign up with the Patrick at *pjblake22@hotmail.com* or 613-521-9048.

Saturday
21 May
8:00 a.m.
to
12 noon

BIRDING THE WEST OF OTTAWA STARTING AT BRITANNIA

Leader: Roy John

Meet: along Cassels Road, outside the gate to the Britannia Filtration Plant. Early May can be a superb time for migrants at Britannia, but we will go westwards if warranted.

Car pooling on excursions is very much encouraged and that is why we usually try to meet at a convenient bus stop with a good place to leave a car unattended for a few hours. Please chip in for gas.

Wednesday 25 May 8:00 a.m. to 12:30 p.m.

Rain date: Wednesday 1 June

BIRDING IN THE SOUTH END

Leader: Gord Belyea (613-736-7051)

Meet: Take Albion Road south from Bank Street (approximately 4 km), turn west (right) onto Leitrim Road and proceed for approximately 2 km, turn south (left) on Bowesville Road and continue for about 200 metres to the parking space on the left side of Bowesville Road where the closed portion of High Road meets Bowesville Road.

The fields to the south of the Airport offer one of the most diverse populations of Sparrows in the area. We could expect to see Song, Savannah, Field, Chipping, Grasshopper, Vesper, Clay-Coloured, and possibly White Throat and Swamp Sparrows on this walk. Other possibilities include Indigo Buntings, Common Yellowthroat, Yellow Warbler, Bobolinks, Eastern Meadowlark, Tree Swallow, and Black-Billed Cuckoo. There is also an important Bluebird trail in this area. Please note: there are no bathroom facilities on this walk.

Saturday 28 May 2:00 p.m. to 5:00 p.m.

EDIBLE WILDS WORKSHOP

Leader: Dr. Erika Gaertner

Meet: Fletcher Wildlife Garden Interpretation Centre, Prince of Wales Drive, just south of the traffic circle

Dr. Gaertner has written two books on this subject: *Harvest without Planting: Eating and Nibbling Off the Land* and *Reap without Sowing: Wild Food from Nature's Cornucopia*. She will present and share her knowledge of edible wilds by showing slides as well as specimens gathered in Ottawa. Following the talk, she will lead workshop participants on a walk around the Fletcher Wildlife Garden to look for edible wilds.

Car pooling on excursions is very much encouraged and that is why we usually try to meet at a convenient bus stop with a good place to leave a car unattended for a few hours. Please chip in for gas.

Saturday
4 June
9:00 a.m.
to
1:00 p.m.

WOODBORING BEETLES AT LUSKVILLE FALLS
Kid Friendly but be prepared for biting flies
Leaders: Serge Laplante and Hume Douglas
Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot, Richmond Road at Assaly Road near Pizza Pizza (or 10:00 a.m. at Chutes de Luskville parking lot at Hotel-de-Ville Road, Luskville, QC).
Gatineau park is home to hundreds of beautiful and interesting species of wood-boring beetles including longhorned beetles, bark beetles, metallic wood-boring beetles and more. Unless we search for them specifically, nearly all of this diversity is hidden from us as we walk through the forest. Join expert beetle collector Serge and event organizer Hume as we search for woodboring beetles and investigate their specialized larval habitats in living trees and deadwood. Please bring your lunch.

Saturday
4 June
9:30 a.m.
to
12:30 p.m.

FLETCHER WILDLIFE GARDEN ANNUAL PLANT SALE
Meet: Fletcher Wildlife Garden Interpretation Centre, east side of Prince of Wales Drive, just south of the Arboretum
Plant a wide variety of native plants for a garden that changes from month to month and at the same time creating an ecologically balanced garden without using commercial chemicals. Most of our plants attract butterflies and birds bringing your garden to life. See page 41o or *www.ofnc.ca/fletcher* for further details.

Sunday
5 June
7:00 a.m.
to
12 noon

BIRDING AT JACK PINE TRAIL
Leader: Gillian Mastromatteo (*gillian_m@sympatico.ca* or 613-599-6115)
Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot, Richmond Road at Assaly Road near Pizza Pizza (or Jack Pine Trail Parking Lot #9 at about 7:30 a.m.)
Jack Pine Trail, located in Stony Swamp, is a wonderful trail for finding breeding birds. Because of its many different habitats, such as marsh, open meadows, and deciduous and coniferous woods, we can expect to find warblers, vireos, herons, flycatchers, rails, sparrows, and many other species. Many birds are more easily detected by their song at this time of year so we will be paying equal attention to the birds we hear and so learn to identify the different songs of Jack Pine Trail's breeding species. While this will be primarily a birding trip, we will also watch for other wildlife such as amphibians, butterflies and dragonflies. Bring binoculars and a morning snack as this outing will last until about noon.

Tuesday	**OFNC MONTHLY MEETING**
14 June	**TRAVELS WITH A LICHENOLOGIST**
7:00 p.m.	**Speaker**: Irwin (Ernie) Brodo
Social & Club Business	**Location**: Canadian Museum of Nature (VMMB), Metcalfe and McLeod Streets, Theatre, Basement.
7:30 p.m. Formal Program	In his perambulations over the years, while working as a lichen taxonomist at the Canadian Museum of Nature, Ernie Brodo encountered dozens of especially interesting and often significant lichens. This talk will feature some of the most fascinating of these, placed in a somewhat chronological, and geographic, context. There is much to learn about these small, beautiful, and often under-appreciated elements of our landscapes.
	Attendees may have to pay $5 parking per vehicle.

Sunday	**BOTANY AND ECOLOGY OF THE PURDON FEN**
19 June	***Kid Friendly***
8:00 a.m.	**Leader**: Ted Mosquin [Fenja & Irwin Brodo 613-723-2054, at Lincoln Fields.]
	Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot near Pizza Pizza, Richmond Road at Assaly Road. [or 9:15 a.m. at the upper parking lot of the Purdon Fen Conservation area.]
	This is an unparalleled opportunity to be guided through this fen and associated trails by botanist, Ted Mosquin, who has been intimately involved with the maintenance of this Conservation Area. We shall get an appreciation of the history and ecology of the fen and we should see masses of Showy Lady's Slippers in bloom as well as other interesting plants. Bring hand lenses, mid-morning snack, lunch, water, hat, insect repellent and sturdy shoes for this full day botanical/ecological joint outing with the Mississippi Valley Field Naturalists. This trip is on rain or shine.

Car pooling on excursions is very much encouraged and that is why we usually try to meet at a convenient bus stop with a good place to leave a car unattended for a few hours. Please chip in for gas.

Sunday
26 June
8:00 a.m.
to
about
4:00 p.m.

ELBOW LAKE

Leader: Gary Bell or Brenda Van Sleeuwen

Meet: Lincoln Fields Shopping Centre, northeast corner of the parking lot, Richmond Road at Assaly Road near Pizza Pizza (Fenja Brodo 723-2054) (or at Elbow Lake at **10:00 a.m.**)

Come explore the many good trails and the amazing forests and wetlands of this lovely property that is part of the Frontenac Arch. While the landscape is definitely Canadian Shield the habitats are decidedly more southern Carolinian in nature, with woodlands of Shagbark Hickory, Burr Oak and Rock Elm. We should, therefore, see some interesting plants, herps, butterflies, damsel and dragonflies. Our Club contributed significantly to the acquisition of Elbow Lake by the Nature Conservancy of Canada. Bring a lunch, water, hat, bug repellent, hand lens, binoculars and your favourite guide books.

Saturday
2 July
8:30 a.m.

(rain date
Sunday
3 July)

ELEVENTH ANNUAL OTTAWA AREA BUTTERFLY COUNT

Kid Friendly

Leaders: Jeff Skevington and Peter Hall

Meet: parking lot at the intersection of Dwyer Hill Road and March Road (NE of Almonte).

[Call Jeff Skevington between 6 p.m. and 9 p.m. on Friday night at 613-832-1970 if in doubt about the weather or for any specific questions regarding this event.]

[If you need a ride from Ottawa please contact Fenja Brodo (613-723-2054) about carpooling.

The North American Butterfly Association (NABA)has coordinated butterfly counts following the same format as Christmas Bird Counts (CBCs) for many years. These counts are published as part of an ongoing program of NABA to census the butterflies of North America (see *http://www.naba.org/counts.html* for more

information). Volunteer participants' focus on a 24 km diameter circle and conduct a one-day census of all butterflies sighted within that circle. As with CBCs, there is a $4.00 charge to participants to support the publication of the results (not obligatory, but encouraged; children under 12 are free). This is the fifth year that OFNC will sponsor a count (and the 11th year that this count will have been conducted). The count area will be centred at Manion

Corners (SW of Ottawa), a site used as a former non-OFNC count circle. It includes several important butterfly areas such as the Long Swamp and the Burnt Lands alvar. It is an all day event so bring your lunch. No experience is necessary! We will put teams together on site and match up people so that everyone has a chance to learn from the experts. If you have binoculars and a butterfly net, bring them along. Butterflies may be captured and brought to the count compilation alive for identification and release.
We plan to meet at The Fletcher Wildlife Garden at 5:30 pm after the count for a compilation and pot luck dinner. Please bring along some food to share plus your own drinks. We will have a collection of butterflies along to help people figure out what they saw and learn a bit more about these amazing creatures. We hope that everyone can make it to the compilation, as it will be a lot of fun; however, if you can't make it, we will get your data in the afternoon before you leave.

Car pooling on excursions is very much encouraged and that is why we usually try to meet at a convenient bus stop with a good place to leave a car unattended for a few hours. Please chip in for gas.

DEADLINE: *Material intended for the July - September issue must be in the editor's hands by 1 May, 2011. Mail your manuscripts to:*

Karen McLachlan Hamilton
2980 Moodie Drive, Nepean, ON, K2J 4S7
H: (613) 838-4943; email: *hamilton@storm.ca*

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